

SER OU NÃO SER?:

A STUDY OF CROSS-LINGUISTIC INFLUENCE
BETWEEN TWO FOREIGN LANGUAGES

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ABSTRACT

There is a large body of research dealing with the question of the influence of the mother tongue on a foreign language being learnt, but relatively little which addresses cross-linguistic influence between two foreign languages. This thesis deals with this issue, examining specifically Spanish and Portuguese. The findings suggest that such influence does indeed occur, but not across the board.

This study involved two features, clitic pronouns, and verbs of existence, thus comparing a more syntactic type of structure with a more semantic type of structure. Two different types of task were used in the study, grammaticality judgements and controlled production tasks, to compare knowledge with actual performance. No significant differences were found between their scores on the two tasks. Nor were there significant differences between their performance on the two structures, except on one aspect of the production task. The study also involved three different levels of students, whose scores were compared to ascertain whether transfer decreased with proficiency; this appeared to be the case for the judgements but not for the production task. The subjects were also asked to complete a grammaticality judgement task in Spanish, to see whether cross-linguistic influence was bi-directional; this would appear to be the case.

As well as linguistic factors, this study also explores affective variables, as previous research in this area examined the relationship between these and general proficiency, but did not look at the specific question of cross-linguistic influence. Accordingly, students' performance on the tasks was compared with their answers to questionnaires on attitude and motivation. Some positive correlations were found between attitudes to the target culture and the occurrence of transfer, but again not across the board. Motivation-type appeared to have an effect on performance in the production task, but not in the judgement task, such that integrative motivation seemed to be linked to transfer between the two foreign languages.

Finally some proposals are offered for classroom application of this research, followed by suggestions for further research.

Para o Stephen e a Tanya com todo o carinho do mundo

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CONTENTS

1. <u>Introduction</u>	1
1.1 Routes Of Interlanguage Development	1
1.2 A Personal Experience	2
1.3. Cross-linguistic Influence: an Overview	3
1.4 Outline of this Study	10
1.5 A Note on the Use of Terminology	11
2. <u>Factors Affecting C.L.I.</u>	14
2.1 To what Extent?	14
2.2 When? The Issue of Ignorance	18
2.3 Why?	22
2.4 What?	30
2.5 Psychotypology	44
2.6 How to tell?	46
2.7 C.L.I. Between Spanish And Portuguese	48
2.8 Summary of Chapter 2	50
3. <u>L2L3 Transfer</u>	52
3.1 L2L3 Transfer in General	52
3.2 Previous Research: Spanish-Portuguese Transfer	59
3.3 Reasons for L2L3 Transfer	60
3.4 L1 > L2 / L2 > L3; the Same Phenomenon?	69
3.5 Summary of Chapter 3	71
4. <u>Some Linguistic Considerations</u>	73
4.1 Spanish>Portuguese: Language Acquisition or Dialect Expansion?	73
4.2 Clitic Pronouns	76
4.3 Verbs of Existence: "Ser" and "Estar"	85
5. <u>Motivational and Attitudinal Factors: the Missing Dimension</u>	90
5.1 The Gardner and Lambert Studies	90
5.2 Motivation/ Orientation	91
5.3 Attitudes to the Target Culture	94
5.4 Anomie	98
5.5 Ethnocentrism	99
5.6 Directionality of Relationship	99
5.7 Acculturation Studies	100
5.8 Connection with my Study	102
6. <u>The Exploratory Study</u>	103
6.1 Subjects	104
6.2 Procedure	104
6.3 The Findings	106
6.4 Summary	117

7 <u>Methodology and Research Design</u>	119
7.1 Aims of the Study	119
7.2 Hypotheses	121
7.3 Procedure	124
7.4 Analysis	149
8. <u>Results: Preliminary Analysis</u>	158
8.1 Judgement Tasks	158
8.2 Production Tasks	167
8.3 Summary	169
9. <u>Results and Discussion: Language-Related Hypotheses</u>	171
9.1 Testing Hypothesis 1	171
9.2 Testing Hypothesis 2	186
9.3 Testing Hypothesis 3	187
9.4 Testing Hypothesis 4	189
9.5 Testing Hypothesis 8	196
9.6 Summary	199
10 <u>Results and Discussion: Affective Factors</u>	201
10.1 Testing Hypotheses 5 and 6	201
10.2 Motivation	217
10.3 Summary	224
11. <u>Pedagogical Implications</u>	225
11.1 The Role of Classroom Teaching	225
11.2 A Word on Methods	230
11.3 The Role of Affect	241
12. <u>Conclusion</u>	243
12.1 Summary of the Study	243
12.2 Limitations of the Study	249
12.3 Further Research	249
<u>Bibliography</u>	252
<u>Appendices</u>	276

I hereby declare that this thesis has been composed by my self,
and that the work contained herein is my own.

1. INTRODUCTION

The bulk of research on cross-linguistic influence (C.L.I.) in the acquisition of L2s deals with the question of mother tongue influence; relatively little has been written about the influence of another foreign language. This thesis offers an account of a study which sought to clarify the nature of this kind of C.L.I., with special reference to Spanish (as L2) and Portuguese (as L3)

1.1 Routes of Interlanguage Development

There have been two main theories about the route of interlanguage development. These were described in the 70's by Corder (1978) in terms of two different continua. The earlier theory, or "restructuring continuum", assumed that the path followed was from L1 to L2; this was the position of Nemser and Slama-Cazacu (1970). However, this formulation presented a problem: if the learner follows a L1-L2 route, the overall complexity of his interlanguages should remain the same, yet Second Language Acquisition data tell us that this simply is not the case. The later theory, or "recreation continuum", as formulated initially by Corder (op cit), was that the learner starts from a "basic, simple, possibly universal grammar, to which all language users have access"¹ (p.100). Corder did not, however, deny the "restructuring continuum"; rather, he said that learners probably make a choice about which route to take, made on the basis of language distance. (i.e. closely related languages > "restructuring continuum"; distant languages > "recreation continuum").

A more current formulation of this distinction is offered within Chomsky's (1981, 1986) Universal Grammar (UG) research paradigm. According to this theory, UG is the property, innate in the human mind, which allows us - uniquely among species - to learn languages. It consists of principles, some of which are common to all languages, others of which are instantiated in different ways in different languages; in the latter case, children learn how these principles are specifically instantiated in their L1 from the input they hear around them. Where researchers in this field disagree as yet, is as to the nature of the "L2 initial state", the "starting point

¹ This idea of an underlying, skeletal grammar – the foundations, one could say, on which all languages are built – is a quite different notion from Chomsky's UG.

of non-native grammatical knowledge" (Schwartz and Eubank, 1996); the question is whether UG is still available to adult learners of a foreign language, and if so, do these learners start "from scratch" (equivalent to the "recreation continuum") or do they start from UG principles as instantiated in their L1 (equivalent to the "restructuring continuum")? None of the researchers who accept the availability of UG in fact advocate the former position; Schwartz and Eubank (1996) maintain that "it would seem implausible to argue that UG rematures in the course of L2 development" (p2); prior linguistic knowledge cannot be simply discounted. Where they differ is in how much of the L1 grammar is transferred into the L2 "initial state". According to Vainikka and Young-Scholten's (1996) Minimal Trees hypothesis, only lexical categories are carried over; this is perhaps the closest to Corders' "recreation continuum", as the "bare VP", the starting point of Minimal Trees, is comparable to the notion of a "basic UG" shared by all languages. Eubank's (1996) Valueless Features hypothesis states that all the L1 grammar except for inflectional morphology is transferred; while Schwartz and Sprouse (1996) maintain, with their Full Transfer/ Full Access hypothesis, that the L2 initial state consists of the whole of the L1 grammar.(see 2.4.2.3 for further discussion).

1.2 A personal experience

I would like to postulate a further possibility: that some learners in fact follow the route L2-L3. Perhaps, rather than a third alternative, this could be considered a "sub-type" of the "restructuring continuum". It seems to me that this was the developmental path of my own learning of Portuguese, for example, which I will briefly outline. When I began to learn Portuguese, I already had a good command of Spanish. My Spanish had been learnt formally; my Portuguese, however, was learnt in an immersion situation. I lived in Portugal for four years, in which time I attended no formal classes; most of my social life was carried out in Portuguese, and by the end of the first year I was considered to have a fairly high level of proficiency.

I used a deliberate learning strategy, based on my own awareness of the typological closeness of the two languages (which in turn was based on my knowledge of the diachronic development of the two languages from Latin, and also on what I had heard of the experiences of other learners.). I began by speaking

Spanish, interspersed with the few Portuguese words I did know, while attempting to imitate Portuguese pronunciation and intonation patterns. This brought opportunities for interaction, and I was able to draw on the input I received to gradually work out which lexemes and grammatical constructions were in fact different in Portuguese than in Spanish, and to modify my interlanguage accordingly. Moreover, I was able to work out a series of heuristics or "conversion formulae" (c.f. Chandler, 1958; Rivers, 1979; Vildomec, 1963; Weinreich, 1953) which could then be applied to Spanish words to transform them into the Portuguese equivalent. In other words, I used L2-L3 transfer consciously, both as a learning strategy and as a communication strategy: a very clear example of "borrowing behaviour" to use Corder's term, except that at the outset it was the **whole** language system of Spanish that was being borrowed². This observation of my own behaviour led to the study described here; I chose to concentrate on Spanish L2/ Portuguese L3 on the basis of my own experiences.

1.3 Cross-linguistic Influence: an Overview

I will begin by examining the issue of cross-linguistic influence (C.L.I.) from a historical perspective. I will first outline the different ways the notion has been regarded in the mainstream literature at different times, and the varying degrees of importance which have been attached to it. There will then be an evaluation of the various ways it is looked at currently.

1.3.1 From the Contrastive Analysis Hypothesis....

The history of attitudes towards cross-linguistic influence could be said to have followed a dialectical route. The "**thesis**", in these terms, would be represented by the Contrastive Analysis Hypothesis, by which all learners' errors were supposed to be explicable in terms of negative transfer from the L1. (c.f. Cartford, 1963 : "in the acquisition of a second language, the mother tongue is a veritable Trojan horse"). It was believed that a systematic analysis of the native language and the target language of the learner, focusing on the differences between the grammatical systems of the

² Whether I also continued to transfer **unconsciously** from Spanish, when I thought I had completely mastered Portuguese, is another matter; I would need an observer to tell me.

two languages, would predict the areas of greatest difficulty (and hence potential error) for the learner, thereby providing guidelines for the teacher as to which linguistic points needed most attention. There **was** however a pre-requisite of partial similarity: where there was **no** similarity - click sound in Bantu languages for example - there would be no interference. Pedagogical requirements were always the driving force behind C.A.; it was a theory deeply rooted in practical considerations.

The teaching strategy of contrasting known languages with languages to be learnt dates back to Roman times and has been alternately adopted and rejected by teachers ever since. (cf Kelly, 1969) However, although predating it by millennia, the practice of C.A. came to be closely linked with behaviourist learning theory: if language was merely a series of habits, then the learning of a new language involved the simultaneous learning of a new set of habits and unlearning of the habits of the L1. Where the old habits continued to interfere, transfer, hence error, occurred. Conversely, where the two languages (the old and the new) coincided, the transfer of the old habit produced a correct form in the L2, and hence was facilitative. Lado (1957) proposed a contrastive model for trained teachers, covering sound systems, grammatical structures, vocabulary systems, writing systems and cultures. This was followed by a series of contrastive analyses involving the major European languages; and Stockwell, Bowen and Martin's (1965) "hierarchy of difficulty", which analysed different kinds of differences between languages, and ordered them according to the amount of difficulty they were likely to give rise to. Lado did recognise the need for validation by checking the actual speech of learners, but according to Selinker (1966), systematic attempts to do this (Kleinjans, 1959; Moulton, 1962) were on the whole unsatisfactory.

Meanwhile, Harris (1954) had proposed a very simple (and simplistic?) formula for contrasting languages: $R_{SL} + (R_{TL} - R_{SL}) = R_{TL}$.³ That is to say, from the learner's point of view, the rules of the TL represent the total of the rules of the SL and of those TL rules which differ from the SL; with presumably the SL rules which are not instantiated in the TL being the main cause of transfer.

All this analysis was not passed on to learners in undiluted form, but was used as a basis for planning courses and writing materials. The audio-lingual method was

³ SL = source language; TL = target language

firmly entrenched at the time, and analysis on the part of the learner was believed to be a cause of transfer, viz. these words of advice from Politzer (1965)

There is probably no general cure against the type of interference that comes from clinging to intellectual understanding in favour of automatic responses” (p25)

At the time, evidence for the occurrence of transfer came from the studies of bilingualism carried out by Weinreich (1953) and Haugen (1953); this was used in support of the C.A.H. Their work in turn arose from observations made by earlier linguists such as Trubetzkoy, Mathesius and Boas.

1.3.2to Creative Construction

The discrediting of the behaviourist ethos as applied to Linguistics began with Chomsky (1959); the equation of behaviourist learning theory and language learning had, as Carroll (1968) and Selinker (1983) pointed out, always been erroneous anyway, as in psychological experiments the first-learned system was usually forgotten – hardly the case with the L1.

The rejection of the Contrastive Analysis Hypothesis followed. Its ability to predict difficulties accurately or consistently was questioned by, among others, Corder (1967). Even work within the C.A. field was, by 1970, often characterised by scepticism (according to Nemser and Slama- Cazacu, 1970), with the claim of predictive power yielding to the lesser claim of explanatory power. For example, Nemser and Vincenz (1972) maintain that Contrastive Analysis is conspicuously lacking in predictive power in the area of lexis due to the element of randomness in learners' establishment of correspondences between lexical elements. Nemser and Slama-Cazacu's (1970) criticism is wide-ranging, they do not reject C.A., but rather point out shortcomings: the fact that the difference between contrastive typology and analysis for pedagogical purposes is not generally recognised; the fact that different linguistic theories lead to different predictions (generativist v. Bloomfieldian, for example); the fact that it tends to treat language as abstract and static; and the fact that absences of structures in the L1, which can also lead to interference in the form of avoidance, would be ignored.

It was at this juncture that Wardhaugh proposed the "weak form of the C.A. Hypothesis" (1971), whereby C.A. should only be carried out "a posteriori", along

with error analysis. A counter-criticism to this was that it then became a pointless exercise; a "pseudo-procedure" according to James (1980).

Researchers working outside the C.A. framework claimed to find fewer errors caused by the influence of the mother tongue than had previously been believed. Richards (1971) emphasises the influence of interference from items within the target language, giving rise to phenomena such as overgeneralisation and under-application of rules. Richards and Sampson (1974) quote various studies which suggest that no more than a third of errors were attributable to transfer. Dulay and Burt (1973), perhaps the most extreme of the C.A.-sceptics, found only 3%⁴. It was now widely believed that L2 learning occurred in the same way as mother tongue learning, and independently of it. It became positively unfashionable to suggest that transfer might take place; an out-dated vestige of behaviourism. Errors were seen as developmental; essentially intra-linguistic, not inter-linguistic. This reaction against the Contrastive Analysis Hypothesis could be seen, then, as the "**antithesis**".

In terms of hard evidence in language data, Dulay and Burt (1982) rejected the findings from Weinreich and Haugen, on the grounds that they were researching into bilingualism, **not** foreign language learning. These, they maintain, are two different phenomena, given that bilinguals are competent in both their languages; and there is no reason to assume that findings in one area can be extended to the other. Nemser and Slama-Cazacu had also pointed out the confusion which resulted from dealing simultaneously with language contact at community level, and language acquisition in individuals, as if they were the same phenomenon. Moreover, Haugen (1953) found transfer operating unidirectionally between the second learnt language and the first: "it is the language of the learner that is influenced, not the language he learns" (p.370); which is the opposite to what the proponents of Contrastive Analysis would claim. Yet another difference is that the bilingual knows two codes: one with "interference structures" and one without; and she is able to switch between the two codes, according to what she perceives to be the linguistic background of the interlocutor.

Turning to their own data, Dulay and Burt claimed that although there were

⁴ This figure, however, referred to studies carried out with children; they did admit to higher rates (8-23%) among adults.

many errors which superficially appeared to have originated from the mother tongue, it was possible in almost all cases to find an alternative explanation⁵ As evidence against transfer, examples are quoted of situations where L1 resembles L2 and yet a form is produced which is different from both; in other words, in places where positive transfer could have been expected to occur, it in fact did not (Gonzalez-Mena Lococo, 1975; Richards, 1971). Other researchers (e.g. Felix, 1980) produced data which at first sight appeared to constitute evidence of transfer, but for which a developmental explanation seemed to be available.

It may seem strange in retrospect to consider the mental contortions that researchers like Dulay and Burt were prepared to go through in order to explain transfer-like errors in other terms. However perhaps this refusal to accept transfer as a cause of error in the face of the evidence can be better understood when put in its broader context, as part of the reaction against the mechanistic ethos of behaviourism.

It is important here to add that not all "mentalists" and generativists rejected C.A. Nickel and Wagner (1968) claimed a very strong role for the mother tongue and a usefulness for C.A. within a generativist perspective. They claimed that previous studies were disappointing because they only compared surface structures, ignoring deep structure; they held that "the primary task of C.A. must be the comparison of rules and rule systems, and not of the structures determined by them." (240), They did however add the caveat that C.A. still lacked theoretical foundations and that it would be years before it would yield satisfactory results in terms of forming a basis for the writing of teaching materials. Sciarone (1970), quoting evidence from Dutch learners of French, was another generativist researcher who accepted the usefulness of C.A. but with reservations; he felt there was a risk that the contrast of languages at the level of surface structure alone, could lead to incorrect conclusions. And James' (1971) "Exculpation of contrastive linguistics" is presented from a generativist standpoint. He suggests that many errors not superficially attributable to L1 transfer may turn out to be when our knowledge of deep structure is more advanced (p56).

⁵ It has since been suggested (Singleton, 1983) that the primary reason why Dulay and Burt's work contained so little evidence for transfer is that they concentrated on morpheme acquisition, and several researchers have concluded (Section 3) that morphemes are less prone to transfer than most other items.

Finally, it should be noted that the extreme pendulum swing away from C.A. appears to have been more a feature of American than of European linguistics. Certainly, in many European universities, projects in both theoretical and applied contrastive linguistics flourished in the 60's and 70's (Nickel, 1971; Fisiak, 1981; Sajavaara, 1981). It should also be mentioned, though, that in the States there were some researchers working on contrastive analysis from a generativist point of view, eg Stockwell, Bowen and Martin (1965), di Pietro (1971); the latter is praised by Bolinger, in his introduction to "Language Structures in Contact", precisely because he "keeps the baby and changes the bath"⁶

1.3.3 Cross-linguistic Influence: a Broader Phenomenon.

More recently, the belief that cross-linguistic influence can and does take place has regained acceptability, but it is regarded as a more complex phenomenon than previously. To quote Kohn's (1986) slightly grotesque metaphor "the analysis of transfer - like the mythological hydra - has multiplied its strength with a crop of freshly sprouted heads and is probing new and promising directions" (21). Transfer is now seen as only one cause of error - not the only, nor necessarily the major one. See, for example, Selinker and Lakshamanan's (1993) proposal for a "Multiple Effects Principle", whereby fossilised IL structures are explained in terms of an interplay of factors, among which transfer plays a major but by no means exclusive role. See also Ellis' (1994) discussion of "doubly-determined errors"; Sharwood Smith's (1983) "conspiracy theory"; and Tarallo and Myhill's (1983) study of the multiple causes of erroneous judgements (of sentences containing relative clauses), just one of which is believed to be transfer.

Conversely, C.L.I. is not seen as just a cause of error, but as a more complex

⁶ As for C.A. as a **research** activity, Selinker does recognise the value of C.A. as a "preliminary step", as an "excellent source of hypotheses" concerning language transfer phenomenon. Corder (1973) does not agree that C.A. should be the first step; he suggests that the ideal route for S.L.A. research is to begin with an error analysis of learner texts in order to come to a description of the learner's interlanguage grammar; however, such a grammar can only attain observational adequacy - one set of data could be accounted for by a large number of possible grammars; a contrastive analysis of the target language and the learner's L1, leading to the selection of the most plausible grammar, is seen as one way of attaining descriptive adequacy.

process. In the words of Gass (1984), it is seen "not as a mechanical transference of L1 structures, but as one of a number of cognitive mechanisms which underlie second language acquisition" (p.117). Previously, in the heyday of Contrastive Analysis, it was assumed that transfer took place automatically, wherever there was a difference. This re-acceptance of the fact that C.L.I. does exist, combined with insights from a more cognitive approach to language learning, provide a more sophisticated definition of the construct of C.L.I. which we might regard as a **synthesis** of the two earlier viewpoints.

One more sophisticated proposal in the literature was Eckman's (1977; 1985) Markedness Differential Hypothesis, which added a new dimension to the C.A. Hypothesis; it suggested that we need to acknowledge that difference does not automatically imply difficulty and hence transfer, and also to examine the degree (not just the existence) of difficulty. According to Eckman, it was where the TL was more marked than the NL that difficulty (and transfer, and error) occurred. His own definition of markedness is typological (See Section 2.4.2.2), and he claims that markedness is "a reasonable measure of degree of difficulty" because it reflects the "structure of human cognition" (329). However, certain research evidence caused Eckman to revise this hypothesis, as it could not account for cases where L1 and L2 did not differ and yet difficulty/error still occurred, which did not result from L1 transfer, but which did reflect markedness relations.⁷ As a result, Eckman replaced the M.D.H. with a new hypothesis, the Structural Conformity Hypothesis, which he maintains can account for all the data explicable by the M.D.H., and much more besides. The S.C.H. states that "all universals that are true for primary languages are also true for I.L.s" (Eckman 1996; p. 204). "The IL will contain more marked structures only if it contains less marked structures" (207). In other words, markedness is a more effective predictor of IL error than is difference.

Another angle on the limitations of C.A. came from Zobl (1982) who claimed that the main problem with C.A. was that it only compared "mature structures" of the L2 with the L1, yet L2 structures are acquired by progressing through developmental stages; thus, the role of L1 prior knowledge might be as a variable introducing

variation into the developmental sequence, rather than manifesting itself directly. Thus, he argued, the indirect and constrained nature of L1 influence meant that transfer and creative construction were not necessarily dichotomous. The arguments and the evidence for this standpoint will be discussed in more detail in the next chapter. See Section 2.6 for further discussion of the ways C.L.I. can work.⁸

1.4 Outline of this study

In the second chapter, there will be an examination of the factors affecting whether, and to what extent, C.L.I. occurs, and in the third I will discuss previous findings and observations specifically regarding influence from a language other than the mother tongue. The fourth chapter examines some issues relating to the two languages under investigation.

I then move on to a discussion of previous work on the effect of attitude on language learning. The question of learner attitudes and the possible effect these might have upon C.L.I. is an unforeseen issue which arose from the exploratory experiment carried out in 1988, and discussed in the subsequent chapter.

Next, I will describe the main study, a modified and extended version of the exploratory experiment; an attempt to learn from my mistakes, incorporate the new hypotheses arising from the exploratory experiment, and extend the research to a wider sample, as well as attempting to give more validity to the control experiment. Basically, I wish to explore the following questions:

- Are learners of an L3 closely related to a previously learnt L2 more influenced by that L2 than by the mother tongue in their performance in L3?
- If so, does this happen in all cases, or is there variability among learners?
- If there is variability, on what factors does it depend?
- Does transfer occur equally at all levels of language (morphological,

⁷ The "troublesome" case in point was that of L1 Spanish speakers learning L2 Swedish, and producing relative clauses with pronominal copies - a phenomenon which does not occur in either L1 or L2.

⁸ To conclude this section, it should be added that not all linguists have wholeheartedly accepted the "cognitive" approach to transfer, c.f. the criticisms of Carl James.(1980)

syntactic, lexical, semantic), or more at some levels than others?

- Is it bidirectional; does L3-L2 transfer also occur, and if so, to the same extent?

For the purposes of the research it was necessary to narrow down the area, so I have chosen two areas of grammar where a contrastive analysis of Spanish and Portuguese suggested that transfer was likely to occur. This was confirmed by teachers of Portuguese to learners with previous knowledge of Spanish. I chose one area where the differences between the two languages are primarily syntactic and one where they are primarily semantic, to ascertain whether the nature of the language features involved had any bearing on the amount of C.L.I. occurring.

Finally, I will discuss the outcomes of the study, and the resulting pedagogical implications that may be derived, as well as making tentative suggestions for further research

1.5 The use of terminology in this thesis

The terms "transfer" and "interference" have their origins in behaviourist psychology; they reflect an adaptation of the psychological concept of "transfer of training", (which refers to any kind of learning situation), to the specific situation of language learning. There are two definitions of transfer; the narrow one, as defined by Osgood (1953): "the effect of a preceding activity upon the learning of a given task" (p.520); and the broad definition, as defined by Ausubel (1963) "the effect of previous experience on current learning".(p.28)(my underlinings). It is not clear when the term entered the Applied Linguistics/ Bilingualism literature. The earliest direct reference is in Lado (1951), but, as Selinker (1966) tells us, "the linguistic assumptions behind the concept had been around at least since Fries (1945), and may even have been traceable to Bloomfield"(p.6).

Some scholars (notably Corder,1983), quite correctly, objected to the use of these terms because of the plentiful phenomena which do not fit; for example, avoidance, which can occur in the L2 when an item is absent in the L1. This is a result of mother-tongue influence, but is not a piece of overt behaviour.

Thus, following Kellerman and Sharwood Smith (1986), I have preferred to use the theory-neutral term Cross-linguistic Influence (C.L.I.) throughout, when

speaking of the phenomenon in general . However, I found it convenient to resort to the use of the terms "positive transfer" and "negative transfer" to denote specific types of C.L.I.: the use of an L1 or L1-like word or structure in the L2, (or L2-like word or structure in the L3) producing either a correct L2 (or L3) form where the two languages coincide sufficiently ("positive transfer"), or an incorrect L2 (or L3) form where the two languages differ ("negative transfer"). Other researchers working in a non-behaviourist paradigm (e.g. Kellerman) have made similar decisions. I prefer to avoid the use of the term "interference", as it seems to be used in several different ways, not all of which are useful for my study. With some writers (c.f. Corder, op cit) it is used to make a distinction which is not the focus of study here: that of "transfer" defined as a strategy or process, and "interference" defined as a feature or product (the result of the strategy of transfer). Other writers (c.f. Duskova, 1969; Meriö, 1978; Richards, 1971) use the term in a more general way than is useful for me, to include intralingual errors, caused by processes like overgeneralisation of target rules. Meriö decides, after Weinreich (1953) to "consider as interference all those errors which are not made by a monolingual" (27); which seems to me to be an over-extension of the term that renders it almost meaningless. At the final extreme of vagueness, Dechert and Raupach (1989) claim that "nothing is really "trans-ferred" from one domain to the other when we speak or listen to a new language. Language transfer is actually a metaphor" (xii); leaving the reader wondering, a metaphor for what, exactly?

Odlin (1989), in his book of otherwise exemplary clarity, uses confusing terminology: "substrate transfer" refers to L1- L2 transfer, while "borrowing" refers to L2-L1 transfer. It is confusing because both terms are used with different meanings elsewhere in the literature. I prefer to use "substrate transfer" with its more specific sense, as it is used in language contact studies, to refer to the influence of a previously-spoken language on the present language which has supplanted it in daily use (e.g. Gaelic on Scottish English); and "borrowing" to mean a conscious, strategic decision to use a language other than the target for communication purposes. L2-L1 influence will be referred to as "backlash transfer", following Kellerman (1987).

Theories of Second Language Acquisition

There is much debate in the S.L.A. literature about the role of theory.

Kellerman (1984), for example, argues eloquently for the need for a theory in the study of C.L.I.:

“it is impossible...to assess the evidence for such influence unless one has a theory (hunch, model or hypothesis) however implicit to guide one in the search for evidence. Without at least a rudimentary theory, there can be no ...way of interpreting data, and when one looks at the mass of material that has been presented as evidence for L1 influence, and then the counter-evidence that is brought forward which contradicts it, it will be apparent that a theory of sorts is necessary”

Various writers such as Beretta (1991) and Long (1990; 1993) are concerned about the multiplicity of theories in the field and call for S.L.A. to unite around a dominant theory or paradigm (presumably the one(s) that they themselves espouse). Long uses the unappealing term "theory culling" here.

However, this "one true religion" approach by no means represents a consensus in the field. For instance, Block (1996) accuses such authors of "science envy", and makes an impassioned plea for us not to jettison exploration; rather than attempting to emulate "normal science", he says, we should embrace pluralism, as social science researchers do. He warns us, moreover, that "doing what is done in the so-called scientific communities does not automatically make applied linguistics more scientific" (73). We should accept that the diversity of theories in S.L.A. reflects the fact that "the workings of the human mind are far too complex to be dealt with in one theory" (78)

Following Block's exhortation, I propose to take an agnostic line in this thesis. Existing theories of SLA will be referred to, even invoked as possible explanations; but no **strong** claims will be made that one current theory is capable of explaining everything. I would, however, maintain that any theory of L2 acquisition has to take into account two undeniable facts;

- the differential nature of L1 and L2 learning, and
- individual differences in terms of L2 attainment.

From the perspective of my study, I am interested in whether L3 learning resembles L2 learning in respect of C.L.I, and whether there are individual differences in the amount of C.L.I. that occurs. One point that I will be arguing for is that, in explaining the latter, individual attitudes and motivation may be crucial factors.

2. FACTORS AFFECTING C.L.I.

“the naïve learner beginning his first foreign language starts out from the hypothesis that the foreign language basically functions in the same way as his L1, with only the lexical items being different”
(Ringbom, 1986, p.150)

Having given a brief historical overview of changing attitudes in the literature towards the notion of C.L.I. in this chapter I will move on to consider what factors affect its occurrence. The questions to be addressed are: to what extent does C.L.I. occur - what individual and situational factors account for variation in the amount of C.L.I. taking place? When does C.L.I. occur in the performance of a given learner? Why does C.L.I. happen at all? In which language levels does C.L.I. occur, and within these levels, what characterises the individual items that are transferred? There will be a section devoted to the issue of psychotypology, and the issue of how transfer is manifested will also be examined. Various "schools" of Applied Linguistic and Second Language Acquisition research will be referred to in this survey.

2.1 To What Extent?

Here, in asking to what extent transfer takes place, I am addressing the issue of variability between different learners and different learning situations. It appears from the research evidence available that transfer is not an across-the-board phenomenon; and how much or how little transfer takes place depends on several factors.

2.1.1. Setting

Ellis (1986) mentions the setting as one factor: whether learning takes place in a classroom or in a naturalistic environment. He invokes Marton (1981) in suggesting that interference is more likely to occur in classroom learning than in naturalistic learning, because of the lack of input and interaction opportunities between one class and the next, and the correspondingly greater use of the student's L1 in the interim. Likewise, Ringbom (1990) finds it plausible that there may be more transfer in classroom situations than in unguided S.L.A., and cites other writers (e.g. Meisel,

Tarone) who appear to back up this view. And Krashen (1981) also claims that there is more mother tongue influence in "acquisition- poor environments", by which he appears to refer to the foreign language classroom.

A different view is offered by Shirai (1992) who suggests that the need for immediate productive communication in a naturalistic L2 environment may actually lead to transfer, as learners with limited L2 knowledge have to rely on their L1 in order to initiate utterances. And indeed, Odlin (1989) cites a number of examples from research suggesting that effective overt instruction may well help to discourage transfer.

In any case, as Wode (1981; 1986) emphasises, it is a matter of degree, not of whether it occurs at all; he maintains that transfer occurs in all language acquisition situations, classroom or naturalistic, first-time learning or relearning, as well as with pidgins. He backs up his assertion with data related to the acquisition of English vowels by learners from different L1 backgrounds and in different learning situations, which shows that however varied the situations, the patterns of transfer from the learners' L1's were remarkably consistent.

2.1.2. Stage

Another factor cited by Ellis is stage of development: there is evidence that elementary students may have more recourse to transfer than intermediate students. Dommergues and Lane (1976), Gonzalez-Mena Lococo (1976), Taylor (1975), Khaldi (1982), Wenk (1968) all found negative transfer declining with proficiency.

Kellerman (1987, 1989), however, points out that advanced learners are also affected but in different ways; they may be more reluctant to transfer perceived marked forms, even where to do so would result in target-like utterances. Levenston (1971) reminds us that advanced learners, while using structures that are grammatically accurate, may be "overindulging" (i.e. using them excessively compared to native usage) or conversely, may be guilty of "under-representation" (avoiding a structure that a native speaker would prefer in a given context). Major and Kim (1996) (writing specifically on phonology) propose that different transfer

phenomena will occur at different levels, and remind us that “real learners...plateau, fossilise, backslide, leap to new heights, and forget” (485); in other words, it is not a question of a neat, steady decrease in transfer as proficiency grows. And Sjöholm (1983) found that learners of a related foreign language (Swedes learning English) transferred more at a later stage as they gained more confidence in the similarity between the two languages through seeing many of their transfer-based hypotheses confirmed. (Besides, in purely quantitative terms, increased knowledge of more areas of the language automatically increases the potential areas available for transfer to occur.)

Finally, there is evidence that even in the case of near-native speakers - whose language production is virtually indistinguishable from that of a native speaker - their underlying grammatical competence may well still be influenced by the systems of their native language. (Coppetiers, 1987; Sorace, 1993)¹

2.1.3. Style

Another issue involves medium, style and register (c.f. Mackey, 1962, quoted in Richards and Sampson, 1974, p.8) The sociolinguistic dimension to transfer is echoed in the work of Tarone (1979; 1983) who observes that "interlanguage does vary systematically with elicitation task"(1983 p.146), a more careful style containing more evidence of L1 interference than a more casual style. Wode's (1981) findings were similar, his experimental (elicited) data showing more L1 reliance than his spontaneously produced data, even where it was clear that the L2 target-like equivalent was available to the learner, because it appeared in his/her spontaneous utterances.

Ellis (1987) mentions more research evidence which points to the "careful style" being more influenced by the L1. This type of phenomenon has been explained within an information-processing framework (cf. McLaughlin, 1987): when more attention is being paid to the content of our utterances, it is thus diverted away from

¹ On the other hand, Birdsong (1992), who pointed out several flaws in Coppetiers' experimental design, reported few differences between NS and NNS when he carried out an improved version of Coppetiers' study.

linguistic form, given that information processing "space" is finite.

On the other hand, Majer (1983) found three times as many "lexical borrowings" in the spoken English of Polish learners, than in their written English. If we equate "spoken" with more spontaneous/ less careful than "written", this appears contradictory; however, we could postulate that it depends on which level of language we are concerned with, as Majer was looking specifically at lexis. Wode (op cit.), also mentions some disconfirming evidence, that of Swain (1974) who found the errors which occurred in a translation task were much the same as those which occurred in spontaneous production. And indeed, Odlin (1989) suggests - in explanation of some evidence of preposition-stranding in the L2 French of English-speaking children - that a relaxed setting may well be conducive to C.L.I. Clearly this question is far from resolved.

2.1.4. Learner type

Meisel (1983) maintains that different learner-types will display differing degrees of transfer; from his own studies, he finds more evidence for transfer among those learners who focus on form and avoid risks than among function-oriented, risk-taking learners. He adds that in his experience, the stage at which transfer is likely to occur is not fixed, but will vary from learner to learner. He also mentions the factor of "learner-orientation": such issues as the learner's social distance from the L2 society, desire to integrate, attitude to the L2 itself, may affect the amount of transfer which takes place. However, these issues are not explored in detail.

As for the question of the age of the learner, Wode (op cit.) found transfer occurring among children as much as among adults; on the other hand, in an overview of research, Dulay and Burt (1982) found evidence for more transfer among adults than among children. The idea that "older" knowledge - in this case L1 knowledge - which has had longer to become "solidified", is more resistant to change does seem intuitively appealing; and, at least in the area of phonology, ties in with the argument that older learners have less motor control over speech organs (Scovel, 1969). Certainly in phonology, the evidence for greater transfer (in the form of

"foreign accent"), appears to be incontrovertible although there may well be some gifted adult exceptions (c.f. Flege et al, 1997)

Odlin (1989) offers a review of personality traits which may interact with transfer, mentioning in particular anxiety and empathy. He cites Schachter's (1974) suggestion and Kleinmann's (1977) evidence that anxiety may lead to avoidance; and, on the basis of Guiora et al's (1972; 1980) alcohol and Valium studies, he suggests that there is probably an "inverse relation between individual empathy and transfer" (p. 131). He concludes this overview with the claim that:

"individuals do not always wish to adhere to the norms of their native-language speech community and may therefore find it relatively easy to adapt to a new set of norms" (p.132),

a claim which is highly relevant to my research (see Chapter 5)

Finally, general language aptitude may be a factor; certainly the component "Phonemic coding ability" (Carroll, 1965, cited in Skehan, 1989) is probably crucial in determining the degree of "foreign accent", or L1 transfer on a phonological level. Also, a high level of "Inductive learning ability" (op cit.), which involves inferring the rules of a language from limited evidence, could lead learners to acquire the rules of a new language rather than simply attempting to apply those of the L1².

2.2. When? The Question of Ignorance

Having looked at the different situations which may be more or less propitious to cross-linguistic influence, we will now consider on what specific occasions during production a given learner may use transfer.

Newmark and Reibel (1968) postulated ignorance of the target language as the necessary condition:

"a person knows how to speak one language, say his native one; but in his early stages of learning the new one, there are many things he has not yet learnt to do... What can he do other than use what he already

² I know of no specific research relating aptitude to transfer as yet; perhaps this is because many still shy away from the construct of aptitude, regarding it as a way of perpetuating inequalities in society. And in fact Skehan (1989) shows that social aspects (class, parental education) are the most influential factors predicting high scores on aptitude tests. However, it may be that admitting this reality is the first step towards attempting to redress the balance through judicious choice of teaching methods and techniques.

knows to make up for what he does not know? To an observer who knows the target language, the learner will seem to be stubbornly substituting the native habits for target habits. But from the learner's point of view, all he is doing is the best he can: to fill in his gaps of training he refers for help to what he already knows."

It should be pointed out here that the concept of ignorance has now been superseded; the very vocabulary used above ("habits", "training") is redolent of behaviourism, and the concept itself presupposes that the learner's own interlanguage grammar has no status or validity of its own. Currently, researchers would write in terms of the target rule being absent from the IL, rather than state that the learner is "ignorant".

Moreover, it is acknowledged that lack of knowledge is not a necessary precondition for transfer, which may occur in production even when the language feature in question is present in the learner's competence. In Kean (1986), the terms "short-sighted transfer" and "blind transfer" are used to distinguish the latter kind of transfer from transfer due to lack of knowledge.

Corder (1983) describes two occasions when transfer takes place:

(1) "borrowing behaviour", which occurs when the L2 resources are insufficient for the task, and the L1 is resorted to as a deliberate communication strategy. This is included with other strategies, under the heading of "resource expansion"; and

(2) "structural transfer", when the L1 grammar influences the structure of the interlanguage without the learner's awareness. Both phenomenon have the same source: a gap in the knowledge of the T.L., and both can have the same effect: incorporation of the new language, if it is correct, and useful information about the limits of the target language if it is not; in either case, a closing of the gap. What distinguishes the two types is, on the psychological level the conscious/unconscious dimension, and in the surface manifestation, the systematic nature of structural transfer, as opposed to the nonce occurrence of borrowing.

Kellerman (1977; 1987) makes a similar distinction: transfer may occur where there is a "gap" in the L2 competence, as a strategy ("a well-organised approach to a

problem” 1977, p.93), or where the L2 structure is not fully "automatised". He also adds the necessary caveat that this will not necessarily lead to the production of an incorrect form given that positive transfer also occurs. And Faerch and Kasper (1986) label the two types "strategic transfer" (a solution to a planning problem, when the relevant rule is unavailable or inaccessible; one type of communication strategy, in other words) and "automatic transfer" (which occurs when the speakers attention is on something else, or when there is a strong association between a given stimulus and a linguistic response). A similar distinction is made in Sjolholm (1983).

These three pairs of terms seem to encapsulate the same essential observation: transfer can be either a conscious or an unconscious process, depending on the occasion when it occurs. All seem to be in agreement, then, about the strategic aspect of the issue; the differences between these theorists seem to lie in whether not knowing the target structure is a prerequisite or not on the unconscious side of the coin. Corder appears to regard it as a necessary condition, whereas Kellerman only demands that it should not be fully "automatised", and Faerch and Kasper's "automatic transfer" seems quite compatible with a state of acquired knowledge momentarily not in evidence. Krashen's (1981) definition of the L1 as an "utterance initiator", on the other hand, seems to suggest that he regards all instances of transfer as falling into the first of these categories - i.e., as being strategic rather than automatic.

Singleton (1983) analysed the influence and "intrusions" from various languages, M.T. and foreign, on a learner's French, both in terms of the linguistic origin of the error, and whether it was caused by "ignorance" or not. To ascertain the latter, he observed whether the incorrect form was systematic or whether it alternated with a correct one, as well as looking at contextual clues which might imply lack of knowledge, such as hesitations or apologies. He concluded that most interference was due to ignorance of the target form; there were cases, however, where there was alternation. Singleton attributes this to an in-between status for the item in question: neither unknown, nor perfectly learnt. Alternatively, he says, it could be due to momentary forgetting - a phenomenon which also occurs with native speakers, and

which he cites as the probable cause of "backlash" interference. James (1980) also mentions "backlash" interference, pointing out that if we can transfer from a later-learned language to an L1, of which we cannot possibly be ignorant, then there must sometimes be a cause other than ignorance.

Sharwood-Smith (1986; 1990) also discusses this distinction in terms of "competence" and "control": interference, he maintains, can originate from "immature control over competence" or - if it is systematic - from divergence from native speaker norms at the level of competence, based on the L1: what he terms "input from within".

In a very similar discussion, Kohn (1986) differentiates between "transfer on the knowledge level" (25), where the learner uses the L1 to help organise her knowledge of the L2, and "transfer in retrieval", where she knows the TL form, but non-linguistic factors like tiredness or stress prevent her from retrieving that knowledge at the moment of performance.

The strands in the above discussion, with its proliferation of terminology, might best be drawn together in the following diagram:

L2 item present in learner's competence?

NO		YES	
"Blind transfer" (Kean, 1986)		"Short-sighted transfer" (Kean, 1986)	
unconscious incorporation of L1 grammar into interlanguage.	L1 as deliberate communication strategy.	... but not fully.	...but momentarily forgotten.
"structural transfer"(Corder)	"borrowing behaviour" (Corder)	"immature control" (Sharwood Smith) "not fully automatised" (Kellerman)	"automatic transfer" (Faerch and Kasper)
"input from within" (Sharwood Smith)	"strategic transfer" (Faerch and Kasper)	"imperfectly learnt" (Singleton)	"transfer in retrieval" (Kohn)
"transfer on the knowledge level" (Kohn)	"utterance initiator" (Krashen)		also: "backlash interference" (e.g. Singleton)

Finally, Cook (1992) introduces yet another dimension, diachronic vs synchronic, (while not bringing out the conscious/unconscious distinction) when he contrasts "code-breaking" and "decoding". By the former, he refers to the developmental process of trying to acquire knowledge of rules and parameters of the L2, through working out the meaning of messages; the latter refers to using the L1 once, on a specific occasion, in an attempt to understand or produce a message in the L2 (p 580-581). At this point, he recalls Weinreich's (1953) vivid simile: "In speech, interference is like sand carried by a stream; in language, it is the sedimented sand deposited at the bottom of a lake" (11)

2.3. Why?

2.3.1. The Nature of Language Itself

In the last section we looked at why transfer may occur from the learner's point of view; but we should also ask, why should it occur from the point of view of the nature of language? The answer given by Adjemian (1976) is that interlanguage, unlike the relatively stable native and target languages, is in a constant state of flux; this makes it "permeable" to influences from both the target language (in the form of overgeneralisation of rules) and the L1 (in the form of transfer).

The corollary of this could be said to be the impermeability of native language perceptual patterns which according to Ijaz (1986) appear to be "powerful determinants of the meaning ascribed to L2 words" and "very rigid and difficult to permeate"(447). Her conclusion derives from her own work on spatial prepositions, during which she discovered that "concepts underlying words in the L1 are transferred to the L2 and mapped onto new linguistic labels, regardless of differences in the semantic boundaries of corresponding words" (405). In her study, even advanced learners tended to transfer the "semantic boundaries" of the L1 equivalents of the prepositions under investigation onto the L2 prepositions.³

On the other hand, there is a large body of counter-evidence for the assertion of

³ For example, German subjects tended to underemphasise the "contact" dimension of "on", because the German equivalent "auf" can be used with a non-contiguous meaning; conversely, they under-emphasised the "movement" dimension of "over", because German "uber" has a "strongly static meaning" (435)

impermeability in the myriad examples of influence on the L1 from a foreign language reported in the wide literature on language attrition and loss among immigrants (see for example Sharwood Smith, 1983; Py, 1986; Seliger, 1989; Seliger and Vago, 1991). Sharwood Smith (1989) presents a taxonomy of factors which, when present, may conspire to cause L2 influence to bring about language loss. We can surmise that a variety of factors, perhaps primarily affective and socio-linguistic ones, come into play here in determining just how permeable - or not - a given speaker's L1 is.

2.3.2. Cognitive/Psycholinguistic Reasons for the Occurrence of C.L.I.

Within the area of cognitive and psycholinguistic research, various different explanations have been put forward.

2.3.2.1. The Universal Grammar (U.G.) Position

There is still controversy among researchers within the field of U.G. (See section 1.1) as to whether U.G. is still available to L2 learners or not. Arguments in favour centre on the notion of the poverty of the input, as with L1 acquisition, which suggests that some innate knowledge must be involved; arguments against are based on the differences between the nature of L1 and L2 learning, and some of the difficulties that L2 learners experience. This issue is very relevant to the question of transfer.

There are three main positions:

1) the "back to UG" (Sharwood Smith, 1994) view, that UG is still available, and SLA occurs as a result of the direct interaction between it and the L2 input, with the L1 playing no role in the process. Flynn (1996) holds this basic position, while allowing for the possibility of the L1 acting as a source of delay and difficulty. White (1996) also cites studies which show the L2 setting being acquired without first passing through an L1-like stage:

2) the "resetting" position, that UG is still available, but the learner may use L1 principles and parameters to create an interim theory of L2 grammar (an "initial template" in Sharwood Smith's terms), until evidence from the L2 input shows

otherwise, and the parameter is reset; c.f. Flynn's (1989) evidence for Chinese and Japanese learners' resetting of the Head-Direction Parameter. On the other hand, this position also allows for learners to reach parameter settings which are exemplified in neither L1 nor L2 yet do not violate UG constraints. Interestingly, White (1996) cites research on reflexive binding which on first sight lends itself to the latter interpretation, but which she in fact attributes to the L2 input being "misanalyzed because of properties of the L1 grammar" (p99).

3) the "UG is dead" (White 1989) or "fossilised UG" view, that UG is no longer available to the adult L2 learner, so that only those aspects of UG encoded in the L1 can still be tapped; parameters are "rusted into" their L1 settings, and cannot be reset. Schachter's (1990) Subjacency studies and Clahsen and Muysken's (1986) L2 German Word Order studies, both cited in White (op cit) claim to back up this position, which assumes the "fundamental difference" between first and second language acquisition.

The last two hypotheses both allow for transfer, but for very different reasons, and with different outcomes. In the second case, negative transfer from L1 is remediable where evidence is available; in the third it is not.

Moreover, there is much debate among those researchers who do in principle accept that L1 influences L2 to a greater or lesser extent, as to the degree of influence of L1 on the "initial state" of the L2. Their opinions range along a continuum: from Vainikka and Young Scholten's (1994) "lexical projections only" position, through Eubank's (1994) view that the beginning L2 is affected by both lexical and functional projections from the L1, but that not all features of these categories are transferred, to Schwartz and Sprouse's (1994) assumption that the entire L1 grammar characterises the initial state of L2 acquisition.

Meanwhile, White (1993) emphasises that the UG-based line on transfer is not just a recycling of the CAH. For one thing, it does not only predict/explain "visible" phenomena, but rather concerns itself with all levels of representation, not just the surface manifestation. She is at pains, however, to point out also the limitations of the approach: it is "highly likely that language transfer will also be involved in

domains that fall outside the scope of UG" (230). It cannot account for all instances of transfer, nor should it claim to; yet within its limits, she maintains, it is a "suitable paradigm".

2.3.2.2. Other cognitive models

Wode (1981) regards C.L.I. as an integrated part of man's "natural linguo-cognitive processing apparatus that allows him to learn languages" (p.52); he refers (Wode, 1986) to the "ability" to transfer. Wode does hold that this "linguo-cognitive capacity" is a **special** type of cognition, specifically geared towards languages, and different from other kinds, such as general intelligence. In other words, he takes a modular view, unlike some other cognitivists. He also postulates it as an **innate** feature of the human mind - this might sound very reminiscent of Chomsky's UG, but Wode maintains that it is different in that it consists not of syntactic structures but of the processing abilities themselves, - the nature of which, it might be added, remains somewhat vague in his writings.

Schachter (1983) puts forward a hypothesis-testing model developed by cognitive psychologists to account for "concept learning", claiming that it is applicable to adult second language learning. According to this model, learners construct their hypotheses on the basis of the data available; they notice regularities and build generalisations; then they test these hypotheses against the input for confirming or disconfirming evidence, and accept or reject them accordingly. This is a non-modular view - i.e. for Schachter, acquiring a second language is not qualitatively different from other kinds of learning. She places transfer within this framework, showing how the L1 - as part of the learner's existing knowledge - can be one of the sources of hypotheses to be tested; if a correct hypothesis is selected on the basis of the L1, positive transfer occurs, and if an incorrect hypothesis is selected, negative transfer occurs. It should perhaps be emphasised that there is a world of difference between this model and the old, behaviourist "transfer of training" view - there is no suggestion here that the learner is merely learning or adjusting a series of "habits". This seems a logical and acceptable proposal, but it is hard to see why it

should be incompatible with an innatist view.

There are similarities between this approach and Felix's (1985), "Competition Model"⁴, according to which adults have access to - indeed, cannot suppress - "problem-solving cognitive structures", corresponding to the Piagetian period of formal operations, which become available at puberty and compete with the "language- specific cognitive structures" (available since infancy). The former constitute a "fundamentally inadequate tool to process structures beyond a certain elementary level" (51), thus preventing "ultimate attainment", or native-like proficiency in the vast majority of learners. This is held to account for individual variation: individual learners differ as to what proportion of their learning depends on each kind of cognitive structure⁵. As with Schachter's (op cit.) model, this system operates on the basis of forming and testing hypotheses about abstract concepts; although not specifically stated by Felix, one assumes that L1 knowledge would constitute one source of hypotheses. The major difference between this model and Schachter's is that Felix does accept a separate language faculty. This makes it intuitively more appealing, as it is able to reconcile individual variation among adult L2 learners with the obvious fact that (almost) everyone achieves mastery of their L1.

The role of transfer in a cognitivist model is stated more explicitly by Dechert and Raupach (1989), who "are inclined to assume ... that the apperception and expression of ideas and events in one language in terms of another language constitute only a special case of one of the fundamental processes in human problem-solving - reasoning by analogy" (viii)

Also from within the field of cognitive psychology, a more recent theory claiming to offer an effective explanation of language transfer is connectionism. Briefly, knowledge - including language knowledge - is based on a system of interconnecting nodes in the mind (mirroring the neural structure of the brain), the connections between which are strengthened by use. Transfer would result from

⁴ Not to be confused with Bates and McWhinney's Competition Model, described later in this section.

⁵ Felix does not go into the reasons for such variation, but his approach seems compatible with the theory that affective factors may explain (or help to explain) individual differences.

associations between nodes for the L1 being activated when the learner attempts to use the L2. This theory is at present still controversial. Hailed by some researchers as an imminent paradigm shift (Shirai 1992), it has been criticised by others as "harking back" to behaviourism, as it discounts not just an innate language acquisition device, but the existence of any kind of rule systems; it is also accused of ignoring fundamental issues like the competence/performance, or representation/use, dimension. Research in the area is based on computer simulations of the learning of language items, and according to two of its critics, Pinker and Prince (1989) (cited in Ellis, 1994):

"the fact that a computer model behaves intelligently without rules does not show that humans lack rules, any more than a wind-up mouse shows that real mice lack motor programmes" (184)

Finally, still under the "cognitive" heading, we ought to briefly discuss the Competition Model, as described by writers like MacWhinney and Bates (1989) (for L1 acquisition) and Gass (1989) (for L2 acquisition), and not to be confused with Felix's model of the same name (described earlier in this section). Like most of the other frameworks described in this section, it sees human language learning as a **general** learning capacity rather than as specific ("non-modular" in other words). Its central idea is that of "form-function mapping": the forms of language exist to fulfil communicative functions. This mapping varies from language to language. The usual illustrative example cited involves "agency". The agent of a verb can be signalled by word order (agent first), by agreement, by case, and/or by animacy (agent usually being animate), but these cues can be given different weighting in different languages: English tends to rely most on word order, Japanese on animacy, and Russian on case. The potential for transfer is clear: learners may well transfer the "form-function mapping" characteristic of their L1 onto their L2⁶. However it appears that some processing strategies are more liable to be transferred than others; in Gass' (op cit.) study, the transfer she describes was not bi-directional, in that Italians learning English appeared to transfer their L1 reliance on animacy cues, whereas the English-speakers learning Italian did not seem to transfer their reliance

on word order. There is evidence also for restructuring with increased proficiency. In my view, this model provides a satisfactory account of certain manifestations of transfer, but is limited in its application, being unable to explain all instances of C.L.I. and being more suited to accounting for reception than production.

Among cognitive approaches, the principle dichotomy is between modular (or "mentalist" or innatist") and non-modular (or "unitary"), that is, whether or not language learning differs in any essential way from other learning. In support of a modular approach, the poverty-of-the-stimulus argument is hard to refute. That does not mean that the views outlined above are irreconcilable in all aspects; I believe it is possible to envisage a framework which draws from more than one of these models. None of them answer every question; the "innatist" views do not explain what is actually happening in the brain: what the neurological correlates are of "wired-in" syntactic structures and parameter settings. Connectionism, on the other hand, provides a more "physical" account of brain activity⁷, but does not explain why it happens; it tells us that the connections are strengthened by use, but appears unable to fully explain how they are made in the first place. There is room for a model which combines the existence of an innate language acquisition device with an account of how it works in practice, neurobiologically and psychologically; indeed such a combination would seem to be essential if a theory of language learning is to achieve explanatory adequacy. It is a jigsaw with many pieces still to fit into place.

Ellis (1990) is one who offers an "integrated theory", on the basis that "different aspects of L2 learning require different kinds of explanation and that neither a purely linguistic nor a purely cognitive framework will provide a complete explanation" (184). He plausibly suggests that the control dimension of S.L.A., the way L2 knowledge is used in performance, most probably works like any other knowledge system - in other words, a non-modular account would provide a sufficient explanation here. However, a linguistic theory is needed to account for how linguistic knowledge enters the learner's interlanguage in the first place; to deal

⁶ For example, Harrington (1987) (cited in Ellis, 1994) found Japanese learners responding more to animacy "cues" than to word order ones in English.

⁷ In the sense that the network of interconnecting nodes it postulates is supposed to mirror the brain's neural structure.

with issues like acquisition orders and the role of explicit knowledge in acquiring a language - that is, the role of formal instruction.

The frameworks outlined in this section can be summarised briefly in the table below:

modular	non-modular	both
1) UG approaches 2) non-UG: Wode's "linguo-cognitive capacity"	1) Schachter's "concept learning" 2) Connectionism 3) Competition Model (Gass, inter alia)	1) Felix's Competition Model 2) Ellis's Integrated Theory

2.3.3. Socio-cultural/ Affective Reasons for C.L.I

Weinreich (1953) pointed out that not all sources of interference occurring when bilinguals switch codes are linguistic: other factors are involved, such as the age of the learner, motivation, loyalty to language, aptitude and attitude.

Faerch and Kasper (1986) also, while expounding what is essentially a cognitive view of transfer, admit that a more exhaustive theory needs to take into account non-cognitive factors: deliberate separation from the L2 culture for affective/ social/ psychological motives, such as fear of loss of identity or lack of prestige of the L2. And even from within a U.G. framework, White (1988) is willing to accept that affective/psychological factors may interact with purely linguistic factors, resulting for example in learners remaining "stuck" with an L1 parameter setting.

(60)

On the question of attitude, Aronson (1973) gives examples of how learners' phonology may be affected; he claims that many learners who are quite capable of producing target- like sounds and intonation will in fact, consciously or unconsciously, produce forms resembling their L1, perhaps as a way of preserving their identity, or perhaps because some foreign-like sounds or features have a negative connotation in the native culture of the learner. (his examples, concerning American learners, include wide-voice-range, and the Spanish /θ/ which could be

perceived as "lispings")

2.4. What?

2.4.1. Which Levels of Language?

Moving on to the question of what features are prone to transfer, it would seem that all aspects of language may be affected by transfer, but some are more likely to be affected than others. What then is transferable, and what are the constraints? Zobl (1980) attests that "there is no substantive borrowing and structural transfer at the level of bound morphology" (p.45) This echoes Schumann (1975) "morphemes do not lend themselves to interference" and Duskova (1969), who found most morphological errors attributable to "interferences between the other terms of the English sub- system in question" (p.21). On the other hand, Odlin (1990) shows evidence that this is not a universal constraint; and Duskova herself later (1984) attested to transfer of plural endings by Czech learners of Russian, but not by Czech learners of English - suggesting that their perception of cross-linguistic similarity might be a crucial factor here⁸. Adiv (1984) claims that unbound morphemes are more easily restructured than bound ones.

On the whole though, the consensus would seem to be that it is more likely for transfer to occur in areas other than morphology: phonology (c.f. Briere, 1966, Nemser 1971, cited in Selinker 1992; Wode, 1981; 1986; Broselow, 1993), syntax and semantics (for example, the transfer of an L1 semantic field to an L2 lexical item, c.f. Graham and Belnap, 1986; Ijaz, 1986; Kellerman, 1986, 1987; Duff, 1993)⁹ as well as in the more recently investigated areas of discourse analysis (c.f. Bartelt, 1993, Kaplan, 1966, on transfer of rhetorical organisation; Scarcella, 1983, 1993 on "discourse accent" - conversational features; Faerch and Kasper, 1986, on

⁸ See also 3.1.1 for mention of morphological transfer between two foreign languages.

⁹ Kellerman (1986) outlines criteria for the transferability of the semantic field of a lexical item. Two factors interact: the perceived similarity of the L1 secondary meaning to the primary meaning, and the frequency of that use of the word in the L1. So, for example, the Dutch word "oog" (eye) can also be used to refer to the eye of a potato, a needle, and a peacock (like in English) as well as (unlike English) the pip on a dice; which parts of the semantic field of "oog" a Dutch learner transfers to English will depend on whether she perceives the meaning to be similar to the primary meaning, and whether she perceives the use of the word with that meaning to be frequent in Dutch.

conversational gambits; Schachter and Rutherford, 1979, on information structure; Trevisi, 1986, on topicalisation) and pragmatics. (c.f. Littlewood, 1983; Kasper, 1992)

It is in the area of phonology that there is unanimous consensus as to the occurrence of transfer, and where it is the most pervasive, perhaps partly due to the dual nature (cognitive and motor) of phonological competence (Sorace, p.c.). Ioup (1984) claims that phonology is the only area where transfer has a major influence. Her conclusion is based on an investigation of how far the “foreign accent” of speakers of different L1s is identifiable, using “accent” in an idiosyncratically broad sense to include syntactic and semantic interference as well as phonological. Her judges were able to distinguish on the basis of phonology, but not on the basis of syntax (when the production was transcribed and/or read by a native speaker).¹⁰ Flege (et al) (1997) offer a critical summary of research hypotheses that have been put forward in this area. There is the “exercise hypothesis” (which they regard as very difficult to test) according to which, the ability to produce speech does not decline with age as long as the learner continues to learn languages uninterruptedly ; and the “unfolding hypothesis” , which suggests that foreign accents (L1 transfer) result not so much from **loss** of language learning ability, as from the greater **development** of the L1 phonetic system, which then “assimilates” phonetically different sounds in the L2. Flege (et al) point out that it is very difficult to differentiate this hypothesis from the “critical age hypothesis”, given that the L1 system normally develops in step with chronological age. Their own contribution, the “single system hypothesis”, predicts that foreign accent may exist in inverse proportion to the degree of use of the L1; “the “less” L1 there is, the smaller will be its influence on the L2” (172). On testing, they found that Italian native speakers who used their L1 relatively often were perceived by Canadian judges as having significantly stronger Italian accents than those who used it infrequently; interestingly, they also found that even among the

¹⁰ However, I feel a little dubious about her method in that “Most of the judges were familiar with the structures of one or both of the native languages” (my underlining). This to me seems too vague; how familiar is “familiar”? I feel confident that I could distinguish the syntax of German and Spanish speakers writing in English, and feel that the judges should all have been proficient in both of the native languages for her conclusions to be valid.

latter, and even among those who had arrived in Canada at a very young age, the judges detected slight accents. The authors are writing specifically about immigrants in a bilingual situation; obviously for classroom learners living in an L1 environment, disuse of the L1 would not be an issue.

The issue of cross-linguistic influence in phonology is currently a large and lively area of S.L.A. research. However, as it is not directly related to my own study, I will not explore this topic any further.

Syntax, as manifested in word order, is also oft-attested in the literature as an area where transfer is particularly common (c.f. Wode, 1981, Duskova, op cit.) This appears to be the result of a specific strategy, that of word-for-word translation from the native language, or "relexification" to use Schumann's (1982) and Sharwood Smith's (1986) term. This type of syntactic transfer is also very much in evidence in language-contact situations, - for example, Irish ("Hibernian") English exhibits many syntactic features of Irish, even though most speakers of this variety no longer actually speak Irish (Odlin, 1989). Odlin (1990), however, provides a discussion of the rarity of transfer of the canonical¹¹ word order of a language (where the L1 and L2 differ). While he attests to a number of cases, he finds that what they have in common is that they occur in informal language contact situations, where learners have relatively little metalinguistic awareness. Also Sasaki (1994) finds little evidence for transfer of canonical word order in sentence processing by learners of English and Japanese. This echoes, and lends support to, Rutherford and Zobl's "universalist position"¹².

Meanwhile, a further dimension is added to this debate with Rutherford's (1989) study, where it is seen that violations of canonical SVO in English Interlanguage do occur where the learner's L1 allows for pragmatic word order variation. Of the languages included in his study, the L1s of this type were Spanish and Arabic. Spanish speakers produced sentences like "In the lake of Maracaibo was discovered the oil", and "happened a story which now appears on all Mexican history books"; Arabic speakers produced sentences like "is terrible the situation in

¹¹ i.e. basic, default

¹² i.e. that there is little negative transfer of basic word order.

Lebanon"¹³. Japanese, on the other hand, does not allow for pragmatic word order variation; in Japanese the verb is always sentence-final, yet the Japanese learners in the study never placed the verb in final position when writing in English. Rutherford emphasises that this kind of transfer does not necessarily manifest itself in L1-like word order; what he is actually proposing is not that the word order itself is transferred, but rather "the propensity of the learner's native language to permute its own canonical constituents"(166) (my underlining)

So far I have talked about language areas in terms of knowledge and production; finally, however, I should not neglect to mention transfer in reception, something which is emphasised by Ringbom (1990; 1992). He describes the difficulties that Finnish learners have with reading, and particularly listening, in English; and explains the latter in terms of factors such as differences in stress patterns (always on the first syllable in Finnish) and consonant clusters (never word-initial or word-final in Finnish), which mean that word boundaries are very clear in Finnish, and that English is correspondingly more difficult to decode for Finnish learners.

2.4.2. Which Items?

Having discussed levels of language; let us move on to look at specific items within these levels? The principal notions used in attempting to explain which items are prone to transfer are "stability"; "markedness" and related constructs; and "similarity".

2.4.2.1. Stability

The area of "stability" has been explored by Zobl(1980); he has observed that those areas of a language which are diachronically unstable are more likely to be involved in transfer. Such is the case with clitic pronouns in Romance languages (see Section 4.2).

¹³ Of course, the rule in English which allows for stylistic inversion under certain restricted syntactic conditions means that some of the sentences produced were correct, e.g. "at last comes the great day".

2.4.2.2. Markedness/ Coreness

The concept of "markedness" has been defined in various ways, within different approaches to linguistics. For a basic, all-encompassing definition, we can cite Ellis (1994): "The term refers to the idea that some linguistic structures are "special" or "less natural" or "less basic" than others" (713). The differences between the various traditions lie in the ways items are categorised as being such.

Four main schools could be outlined here. Historically, the concept of markedness was formulated and explored by the Prague School, by linguists like Jakobson and Trubetzkoy, for whom "marked" or "unmarked" was an "either/or" dichotomy, a system of oppositions. A marked form in a given pair of items may contain more information (either morphologically through the addition of an affix, or semantically by being more specific) or may be more limited in its range than the unmarked counterpart; or both.¹⁴ The original Prague School linguists talked in terms of "presence" or "absence" of a defining feature.

Within the study of language typology, the second approach to be considered here, the crucial factor in determining markedness is universality across languages, or more correctly, whether or not a feature shows a tendency towards universality: unmarked features are present in many languages, while marked features are found only in a few.

The Chomskyan definition has three dimensions (Battistella, 1995). The first distinction hinges on the Core-Periphery opposition: there are core rules, which are derived from innate abstract principles of language structure, and need only minimal evidence in the learner's input to be acquired; and peripheral rules, which reflect the historical development of the individual language in question, and require far more input in order for acquisition to occur. Peripheral rules, by definition, are marked vis-à-vis core rules. Secondly, there are marked/unmarked oppositions **within** the core, to do with marked and unmarked settings of parameters; and thirdly, there are marked/unmarked distinctions within the periphery. The Chomskyan definition is

¹⁴ To give examples: "lion - lioness" would be an example of morphological markedness, "dog - bitch" of semantic markedness, and "old-young" of distributional markedness (because "how old" occurs in a question, "how young" normally does not) I based my very brief discussion on Lyons (1977)

much more abstract and therefore less cut-and-dried than the typological one; the analysis of the world's languages to ascertain which features are more common than others may be a mammoth task, but it is based on numerical facts, whereas the decision as to what is marked and unmarked in Chomskyan linguistics is based on learnability considerations, such as the amount of input needed for acquisition. Evidence comes from studies of child language acquisition and of language loss (assuming that language features are lost in roughly reverse order from that in which they were acquired)¹⁵. There is sometimes disagreement between researchers working within the paradigm, as to what is and is not marked, making it still an area of controversy.¹⁶

A fourth definition, from Comrie (1976), rests on the principles of "semantic complexity" and "more morphological material"; in other words the more complex the structure, semantically and morphologically, the more marked it is. This might seem not unreasonable, although one wonders whether it is a separate concept from mere complexity, and whether it therefore needs to be labelled "markedness" at all.

Whichever the precise definition adopted, the prevailing (though by no means unanimous) opinion in the literature on cross-linguistic influence is that unmarked forms are more likely to be transferred than marked forms; there is greater resistance to transferring marked forms. For example, Sjöholm (1983) found his Swedish- and Finnish-speaking learners reluctant to accept L1-based "marked" expressions in the L2, presumably because they assume the "marked" items to be specific to their L1. And Zobl's (1984) French learners of English did not on the whole accept ungrammatical sentences instantiating the kind of typologically marked extraction which is acceptable in French, such as *"How many do you want oranges?" Likewise, Kellerman (1989) discusses the preference of advanced Dutch learners of English for using "would" rather than the simple past tense in the "protasis" (if-clause) of hypothetical conditional sentences. Dutch allows both "would" and the

¹⁵ And indeed, the Prague school were interested in similar kinds of evidence (Battistella, 1995)

¹⁶ For example, Mazurkewich (1984), in a study of the acquisition of dative alternation, maintains that the NP+PP pattern (I gave X to Y) is a core rule, and unmarked vis-à-vis the NP + NP pattern (I gave Y X), a peripheral rule. However, Hawkins (1987) argues that dative alternation is a lexical property of verbs and therefore the whole concept of dative alternation belongs to the periphery.

past tense, but with a difference in meaning: the past would be correct when the meaning is counterfactual, but not when purely hypothetical, for which the equivalent of “would” is required¹⁷. The past would in many cases be perceived as a “marked” use of the tense, and thus less likely to be transferable. Kellerman emphasises perceived markedness as the crucial factor.

However, there is disagreement on this issue, as some counter- evidence exists (c.f. White 1987; 1989). White, arguing from a UG approach, maintains that markedness does NOT pre-empt transfer; learners are not necessarily aware of markedness, marked forms are often frequent in the languages in which they occur and do not seem odd to native speakers. Her English-speaking learners of French were happy to transfer typologically marked double-object constructions like “John gave Fred the book” into French. They did not, it is true, transfer preposition stranding, another typologically marked form; this is surmised to be because of its avoidance in formal written English, and therefore probably also in the L1 English classroom. Besides, in a different study, Liceras' (1985) English- speaking learners of Spanish DID accept instances of it. Could it be, then, that whether marked forms are transferred or not depends to a large extent on the degree of metalinguistic sophistication of the learner? i.e. for transfer to be avoided, must she first be **aware** (at some level of consciousness) that, in universal terms, there is something unusual about the form? This would certainly be compatible with Kellerman’s (op cit.) notion of “perceived markedness”.

Another explanation for this apparently contradictory type of evidence is put forward by Bardovi-Harlig (1987), who found learners whose L1s only allowed the unmarked structure of “Pied-piping” nevertheless acquiring preposition stranding first.. She attributes this **non**-transfer of the L1 unmarked form to the salience in the L2 input of the preferred but marked form, and suggests the hypothesis “unmarked forms are acquired earlier” be modified to “unmarked forms are acquired before marked **all things being equal**.” The problem here, as Ellis (1994) points out, is that if frequency in the input can override frequency across the world's languages, then

¹⁷ It appears that there is a tendency to move towards this usage in certain varieties of English also. (Sorace, p.c.)

how significant is markedness as a factor determining transfer? Ellis however does not dismiss markedness, but stresses the need to examine why certain factors are more common (and therefore unmarked) than others in universal terms. It is these underlying reasons, not just the bare fact of frequency, which should provide explanations for language acquisition in general and transfer/ non-transfer in particular. (I remind the reader at this point that I am discussing typological rather than Chomskyan concepts of markedness).

A final word is needed here on the danger of circularity: to define "unmarked"/"marked" or "core"/"periphery" in terms of transferability - would of course remove any explanatory power from the concepts.

2.4.2.3. Parameter-setting

Another aspect of the field of Universal Grammar relevant to a discussion of transfer is the question of "parametric variation". The argument is that once a particular "parameter" is set in the L1, it may not be immediately obvious to the learner (from the input received) that the L2 setting is different. White (1987) gives an example of this in connection with the "pro-drop parameter". "Pro-drop" languages are highly inflected languages like Spanish and Portuguese which allow the omission of the subject pronoun. The dropping of the subject pronoun is however not universal in pro-drop languages; it is retained in certain circumstances, for example to provide emphasis (the equivalent of a stressed pronoun in English: "ella no viene" - "SHE's not coming"). Speakers of pro-drop languages do therefore hear some subject pronouns in the L1 input they receive; when they are exposed to non-pro-drop languages they also hear subject pronouns; and it is not immediately obvious to them that the pronouns are obligatory. Their L1 parameter-setting leads them to believe that pronoun use is optional in the target language as in their L1; thus, transfer takes place and the pronouns are omitted in the L2.¹⁸

¹⁸ The "pro-drop" parameter later evolved, through the "null-subject" parameter to the Morphological Uniformity Principle (see White 1996), which states that null subjects are only allowed in languages with uniform inflectional paradigms (i.e. "all or nothing" - all forms morphologically complex or none) This accounts ingeniously for why otherwise dissimilar languages like Spanish (all forms of verb inflected) and Chinese (no forms inflected) both permit null subjects, while English does not

There was insufficient research into the issue of parametric variation for it to provide a viable explanation for transfer; a limited number of parameters were described, and (for example in the case of the null subject parameter) there was not always consensus as to what they consisted of. More needed to be known about the nature of parameters, and the instances of transfer - positive or negative - that could be attributable to their L1 settings needed to be investigated more fully. In fact, in more recent theoretical linguistics, it has ceased to be argued that UG contains syntactic parameters. According to Chomsky's latest theory, the "Minimalist Program", languages differ in essentially lexical ways, so although there is still parametric variation, the nature of the parameters is very different from the parameters of GB theory¹⁹.

2.4.2.4. The "Subset" Principle

Yet another angle on transfer deriving from U.G., and much discussed in the 1980's was connected with the Subset Principle, initially put forward to explain some aspects of first language acquisition. According to this principle, a child acquiring language would start by hypothesising the more restricted grammar that would fit the input, and would only move on to accepting the more general one if faced with positive evidence which favoured this choice. Hyams (1986), for example, produces evidence that children start off assuming that their L1 is morphologically uniform (see footnote 2), and only revise this hypothesis when faced with disconfirming evidence (as in the case of English: English-speaking children begin by allowing null subjects and by not inflecting verbs); she maintains that languages whose grammars exhibit Morphological Uniformity represent a more restricted grammar, hence the Subset Principle applies.

In relation to second language acquisition, there were two opposing views vis-à-vis the Subset Principle: the transfer position and the non-transfer position. According to the former, hypothesising two languages "x" and "y", if the grammar of "y" regarding a given structure was broader, and allowed the generation of a larger

¹⁹ The Minimalist Programme in fact accounts for pre-verbal clitics in Romance languages more effectively than GB theory does.

number of sentences than the grammar of "x", - in other words, if a structure in language "x" represented a "subset" of the equivalent of that structure in a language "y", (the "superset") - then there would be transfer of that structure from speakers of the more inclusive language "y" learning the more restricted language "x". Learners going in the reverse direction - from "subset" L1 to "superset" L2, might begin by transferring their more restricted grammar, but would soon notice evidence for the more inclusive grammar in the input and would switch the parameter accordingly. This conceptualisation was evoked, for example, in discussion of the pro-drop parameter: "pro-drop" represents a "larger" grammar than "non-pro-drop"; therefore learners going from a "pro-drop" to a "non-pro-drop" language could be expected to transfer, i.e. to produce subject- less verbs, whereas the opposite case (i.e. over-production of subject pronouns), if it did occur, would be a shorter-lasting stage.

As part of this debate, White (1989) investigated the Adjacency Condition, a parameter affecting word order: the positive value of the parameter does not permit a verb to be separated from its direct object, as in English, which does not allow "*John drank quickly some coffee"; the negative value does permit separation in some circumstances, cf. French "John a bu rapidement du café". Clearly, the former grammar is more restricted than the latter, and could be said to stand in a subset/superset relation to it. However, it appeared that French learners of English were more likely to apply their own L1 superset grammar to English than to start off with the subset grammar - thus, providing evidence for the transfer position. White (1993) again affirmed that learners whose L1 instantiates the "superset" grammar can generate a "superset" value in the L2 interlanguage, this time in connection with the Proper Antecedent Parameter. And Rutherford (1989) cites his findings about transfer of Pragmatic Word Order as evidence for the transfer position.

The **non**-transfer position, on the other hand, held that **all** learners, whatever their L1, would start from the "subset" until coming across evidence to the contrary. They would, that is, behave just like children acquiring their native language. As an example of this school of thought, I could cite Liceras (1988), who maintains that her data on the acquisition of aspects of relative clauses by English-speaking learners of

Spanish, do not confirm predictions made by the Subset Principle.

The subset/superset metaphor has passed out of usage in the 1990's (cf. Towell and Hawkins, 1994), at least regarding second language acquisition, because the necessary pre-conditions are difficult to satisfy; indeed there are researchers (cited in White 1996) who claim that there are **no** examples of UG parameters yielding languages in a subset-superset relationship. Some researchers (c.f. Zobl, 1993), however, still use the term "conservative grammar" to describe the phenomenon of a more restrictive, less inclusive set of rules; so it is not the case that the whole concept has been summarily dismissed. The main focus of interest now, though, is in what kinds of **evidence** bring about acquisition.

2.4.2.5. Crucial Similarity

One idea, which has appeared under various names in the literature, is that learners will only transfer items that they perceive as being similar in the L1. This idea was first proposed by Weinreich (1953), who termed the phenomenon "interlingual identifications", and maintained that it could occur with both phonology and grammar, wherever resemblance between L1 and L2 "tempted" (Weinreich's metaphor) the speaker to transfer.

Wode (1981) says that it is clear that transfer will only take place if the L1 and L2 structures are similar in "crucial" ways; yet he does not make it clear what constitutes "crucial similarity", nor precisely which properties of a given structure are involved. The clearest example that he gives is from phonology; he suggests that where an L2 sound is very close but not identical to an L1 sound, the learner will tend not to perceive the difference and will therefore produce the L2 sound; whereas, if the L2 sound is plainly different from any existing in the L1, the learner will try a different tactic, whether imitation or approximation of the L2 sound, or whether some other solution.

While intuitively appealing, this does seem to raise some problems; apart from the question of what the crucial similarities are, there is the question of how similar do the structures have to be, for the similarity to be crucial? This theory seems to beg

some questions, as well as actually being contradicted by some of the available data, unless crucial similarity is very loosely defined. Some supporting evidence, also from the area of phonology, does come from Bohn and Flege (1992) (cited in Ellis, 1994), who found that German learners of English did not achieve target-like pronunciation of vowels which were similar but not identical to their German vowels, suggesting that perhaps "category formation is blocked by equivalence classification" (156).

A more recent (and less vague) notion along similar lines is Major and Kim's (1996) Similarity Differential Rate Hypothesis, which suggests that very different sounds are acquired more quickly than sounds that are similar but not identical, although the latter will initially be produced more proficiently. Major and Kim do point out the problem of deciding what exactly constitutes similarity – and refine their proposals by taking markedness into account. Their research is in phonetics, but they express the hope that further research will attempt to test the hypothesis in other areas of language.

A related explanation is the notion of "interlingual mapping", put forward by Tanaka and Abe (1989; quoted in Shirai, 1992), whereby "language transfer is likely to occur in the linguistic areas where it is easy to find interlingual equivalents". (p79) Yet another is Andersen's (1983; 1990) "Transfer to Somewhere Principle", which states that negative transfer will only occur when there is the "potential for mis-generalisation in the L2 input" - i.e. the input the learner receives may lead her to infer that the L2 grammar is the same (regarding a specific structure) as that of the L1. Schmidt and Frota (1986) invoke schema theory when describing a similar idea, in this case discussing L2-L3 transfer: "top-down processing, filling in the Arabic schema once it's been activated by what I know so far about Portuguese" (255) (my emphasis)

It is clear then that there is broad agreement among many researchers that where structures are similar but not identical across different languages there is the greatest - some claim the only - potential for negative transfer to occur. This is relevant to my study, as will be seen.

At the same time, it should be reiterated that we are talking here of similarity between given structures, not between whole languages, a dimension which will be examined in Section 2.5; it is quite possible for two typologically very different languages to share similarities regarding certain specific structures.

2.4.2.6. A Choice Between Two Alternatives

There is another hypothesis which is relevant to my study (see over): Jensen's Alternation Hypothesis. Jensen et al (1981) provided some evidence that where the L2 offered two alternatives in the place of one structure in the learner's L1, she would choose the alternative which existed in the L1. They studied Moroccan and Turkish learners' acquisition of Dutch word order, which allows both verb-final and verb-second positions, and found their hypothesis partially confirmed.

Various proposals on similar lines can be found in the literature. In his study of the ordering of "syntactic strings" (specifically, Object Clauses and Adverbial Phrases).²⁰ Selinker (1966) found that when there is a statistically significant trend towards one of two possible alternatives in the L1, it will be paralleled by a significant trend towards the corresponding alternative in the speaker's attempted production of the target language. Another comparable study is that of the acquisition of English dative verbs by le Compagnon (1984). While believing that L1 and L2 learning are essentially the same process, le Compagnon maintains that L1 knowledge can lead the learner to overgeneralisation of T.L. forms. This could explain why French learners produce errors such as "Mary said me"; this is closer (though not identical) to the French equivalent structure and there is positive evidence of such constructions being permissible with certain verbs, such as "tell". The French learner thus overgeneralises, assuming [V NP NP] to be the unmarked case, when in fact in English it is marked.

There are also similarities with White's (1988) suggestion that "any circumstance where the L2 data are consistent with several grammars, one of which happens to be the L1 grammar, will particularly favour the transfer of the L1 parameter or rule into the interlanguage" (47). The specific example she cites

involves the pro-drop parameter – see 2.4.2.3

My claim that this issue is relevant to my study is based on the two possible positions for object clitics in Portuguese, one resembling English, one resembling Spanish (see Chapter 4). Following Jansen et al, we might expect English N.S. to consistently choose the English-like position; however, as we shall see, the matter is a lot less clear-cut than this.

2.4.2.7. "Language-Neutral/ Language Specific"

To conclude this section, we will mention a dimension which Kellerman (1987) has added to the issue of transferability: the question of whether a speaker regards items of her L1 as "language-neutral" or "language-specific" - the idea being that she will transfer items regarded as "language-neutral" but not those which are "language-specific". He cites idioms as examples of items which learners are less likely to transfer (by word- for-word translation), based on his own empirical research with Dutch learners of English; Khaldi (1982) conducted a similar experiment with Arabic learners, with similar results. Sharwood Smith (1979) similarly suggests "indexing" items which are likely to be rejected as language specific and therefore non-transferable. He gives the example of the unlikelihood of English native speakers learning that "apple" = "pomme" in French, and subsequently producing "il est la pomme de mon oeil". (Odlin, 1992, mentions conflicting findings in the case of Hiberno-English, where Irish idioms were transferred to English. However, the characteristics of a language contact situation are very different to those of a Foreign Language Learning situation – speakers who share the same substrate would expect their addressees to understand elements transferred from that substrate).

This notion is seen as being in inverse relation with the construct of psychotypological distance (to be examined in 2.5); that is, the closer two languages are typologically, the fewer the items of the L1 regarded as being language-specific vis-a-vis the foreign language, and the greater the potential for transfer.

²⁰ To this writer's knowledge, the first experimentally-controlled study of syntactic transfer

2.4.2.8. Universality of what is transferred

A general question arises here; whether what is transferred from language “x” to language “y” is the same in all situations and with all individuals, or whether there are differences. Some interesting insights have been yielded by studies of languages in contact. For instance, Lipski(1987) describes a Spanish-speaking community in an isolated area of Indiana. Its members are descended directly from Spaniards, not Latin-Americans, and they have no contact with other Spanish-speaking groups, yet their Spanish shows features of borrowing from English which are the same as those found among Puerto-Ricans and Mexicans: loan translations, English- like semantic extension of Spanish words, dropping of the definite article, etc. According to Lipski, this points to the universality of transfer features. (We might add the caveat, “at least in the area of “backlash” transfer”)

Relevant here also is Odlin's (1992) research on Absolute Constructions in Hiberno-English, which can be interpreted as instances of Irish substrate influence. He found Hebridean English to contain very similar constructions, showing parallel influence from Gaelic, in a comparable language contact situation. (comparable in the sense that, while Irish and Gaelic are closely related languages, there would have been little actual contact between the Irish and the Hebridean people)

2.5 Psychotypology

Let us now look in more detail at the issue of "perceived language distance" or "psychotypology"(Kellerman, 1987), which may be crucial both in determining whether transfer will take place at all, and if so, how much. Several other writers have maintained that the amount of transfer is determined to a large extent by the perceived distance between source and target language (c.f. Mackey, 1971, cited in Lightbown 1984; Gass, 1988 and the Minimal Distance Principle; Ringbom, 1990, 1992) It appears that if a learner perceives the L2 as close to the L1, she is more likely to transfer than if she perceives them as being very different.. As James (1977) says,

"It is not only whether L1 and L2 actually differ or are the same at a particular point or not, but rather whether the learner expects or

believes this to be the case." (12)

It does seem that learners' perceptions of language distance generally correspond to linguists' definitions of typological closeness. However, there is a problem, when we come to measure to what extent languages are close; Neustupny (1971) attempted to discover a "model of linguistic distance", but interesting as it was, it was basically a list of the levels on which languages resemble each other (genetic, typological, etc.) rather than a mathematical measurement. Just as there is no absolute yardstick for actual distance, there is clearly no objective measure of perceived language distance, so ultimately we are dependent on the researcher's intuition.

There are some studies which are based on the learning of one L2 by speakers of two different L1s, which show that the native speakers of the L1 which is typologically closer to the L2 achieve more target-like performance. This can be accounted for by the notion of positive transfer. For example, Pfaff (1984) compared Turks and Greeks learning German; she reports differences in favour of the Greek-speakers, although slight. She found the area of lexis to be an exception, however; the Greeks produced more non-standard lexis than the Turks:

"overall structural congruence can also provide the framework in which interlingual identification and transfer at the lexical level can take place"(293)

In other words, the greater relatedness of German and Greek appears to have been the source of both positive and negative transfer.

Vildomec(1963) makes the very interesting point that this tendency among individual bilinguals/learners to transfer between similar languages, is mirrored in the historical behaviour of entire languages: languages which are in contact geographically, and which are similar, will influence each other more than dissimilar languages. For example, the Swedish spoken in Finland is "pure", and free of influence from Finnish; a contrasting example might be that of Catalunya, where both Castillian Spanish and Catalan (two closely related Romance languages) are spoken, and both evince a large degree of transfer from each other.

Some counter-evidence is offered by Huffines (1991) in her study of the acquisition of Pennsylvania German by non-native speaking (English L1) children of

native-speaking parents. These learners appeared to use transfer from English only as a very last resort, when no other strategy was available, preferring to "maximise the distance" and "search for appropriate rules and analogies internal to the Pennsylvania German they have learnt" (p. 53). Huffines actually attributes this lack of transfer to the "syntactic near-congruity" between Pennsylvania German and English. This seems counter-intuitive, and leads me to posit an alternative, affective explanation: it could well be that these young people, who have after all chosen to learn the language of their older relatives despite lack of encouragement, **avoid** using English and English-like structures as far as possible as a sign of solidarity with the traditional culture and values of the native-speakers.

It is worth pointing out here that the idea that perceived similarity between languages will lead to transfer would seem to be in direct contrast with the C.A.H., which supposed that greater **distance** between two languages would lead to more transfer errors. The latter view continued to be held by (for example) James (1971).

The notion of perceived language distance will be explored further in Section 3.3.2., regarding its relevance to L2-L3 transfer.

2.6 How to tell?

Finally, there is the problem of how to tell that transfer has taken place. (c.f. Gass, 1984). L1-based error, or negative transfer, is the "tip of the iceberg". For example, where a correct form is produced, how do we know whether we are dealing with a learnt internalised rule, or a case of positive transfer? (c.f. Kellerman, 1977, on the issue that ignorance does not necessarily lead to error). Schumann's (1976; 1978) learner Alberto, for instance, put forward as the classic case of pidginisation, did in fact produce target non-pidgin-like forms in some areas where Spanish rules corresponded to English ones, such as plural -s and the use of the copula. His remarkable corresponding lack of success in producing target-like forms in other areas, where English and Spanish differ, suggests that positive transfer (rather than acquisition) played a major role in forming Alberto's IL. Conversely, a judgement which appeared to be the result of negative transfer, could perhaps have been the result of over-generalisation. So how do we tell these phenomena apart?

Then, there is the phenomenon of **avoidance**, or "under-representation" (Levenston, 1971) where the structure does not exist in the L1 and so is avoided in the L2 (c.f. Schachter, 1974). Laufer and Eliasson (1993), for instance compared the acquisition of phrasal verbs by Swedish- and Hebrew-speaking learners; they found that the Swedish learners avoided phrasal verbs significantly less than the Hebrew speakers, who do not have these items in their L1. Avoidance does presuppose some knowledge of the target structure, otherwise there is nothing to avoid; it may occur because the target structure is perceived as too difficult to produce at the time of utterance, for example, or because it goes against the learner's own behavioural norms (Kamimoto, Shimura and Kellerman, 1992). In the latter case, the learner may indeed be well aware of the L2 structure, but simply prefer not to use it. An example given in Ellis (1994) is of Hebrew learners of English who avoid using the passive voice, not because it does not exist in Hebrew, and not because they do not know it, but because Hebrew prefers the active.

Rate of acquisition can also be affected: there may be relative delay in restructuring the L2 system (c.f. Zobl 1980), and conversely, relative speed of acquisition where there is similarity (Andersen, 1983; Shirai, 1992; Duff, 1993). As an example here, Duff (1993) describes how learners of English tend to use a single morpheme to convey both possessives and existentials, a tendency which in fact is reflected in the lexicons of a number of languages²¹; however, learners whose L1s have two different morphemes (e.g. Spanish) pass through the single-morpheme stage more quickly than those who do not (e.g. Brazilian Portuguese). Similarly, Hammaberg (1979) shows that English-speaking learners of Swedish acquiring negation seem to miss out the pre-verb negation phase, because English is like Swedish in having post-verb negation. This facilitative effect – “a leg-up along the developmental ladder” as Kellerman (1987) terms it - is clearly not identical to positive transfer, as these learners DO produce non- native forms first.

Then there are differences in **route** of acquisition between learners of different L1s; Andersen (1993) quotes Cancino (1979) with the example that Japanese is the

²¹ The morpheme is usually "have". c.f. French "il a" (he has), "il y a" (there is). Duff maintains that the notions of existence and possession are closely linked semantically.

opposite to Spanish in having a possessive morpheme but no plural morpheme; this seemingly leads Japanese learners of English to acquire the possessive before the plural, the reverse situation from that of Spanish learners. (See also Sasaki 1987; cited in Shirai, 1992)

Finally, I should mention **overproduction** of the target form. (c.f. Gass, 1984, p.118 and 120), Levenston's (1971) "over- indulgence". In many cases, this is the corollary to avoidance - a less frequent form being used instead of a more frequent form preferred by native speakers - speakers of Romance languages, for instance, often over-use formal Latinate lexis in English at the expense of phrasal verbs and other Germanic vocabulary. Levenston (op cit.) indeed provides a taxonomy of forms which are "over-indulged" by Hebrew learners of English, alongside their "under-represented" counterparts. This phenomenon may result in forms which are completely correct, but excessively formal, or verbose, or – conversely – informal. Another example of overproduction is provided by Rutherford (1989), who points out that, because Spanish allows more flexible word order, Spanish-speakers will often use subject-verb inversion in English, which is common in Spanish but marked (though not always incorrect) in English (see footnote 9).

2.7 CLI between Spanish and Portuguese

Lastly, I will briefly look at CLI between Spanish and Portuguese, as these are the two languages involved in my study. The limited literature regarding L2-L3 influence between these languages will be dealt with in Section 3.2. Here I will review some literature concerning transfer between L1 Spanish and L2 Portuguese - as far as I am aware, existing work on this topic deals with naturalistic learning, in a contact situation, rather than with a classroom situation.

A major work in this area is Hensey (1972), who investigated the influence of Spanish on the Portuguese spoken by Uruguayans living on the Brazilian-Uruguayan border, by all accounts an area with a considerable degree of contact and "harmonious co-existence". Working within a C.A. framework, - i.e. expecting difference to predict "interference", - he looked mainly at phonological and lexical

features. In terms of phonology, he predicted and found seven examples of phone substitution (e.g. the rendering of intervocalic /b/ /d/ and /g/ as fricatives) and three kinds of underdifferentiation (e.g. /o/ and /ɔ/ realised as one sound. At the lexical level he lists a number of "loans" from Spanish, e.g. *cozinha* for *fogão* (stove), where Spanish is *cocina*²². He noted very little apparent grammatical interference in the form of Spanish-based errors, while pointing out that, on occasion, use of Spanish-like forms could actually result in a more standard form of Portuguese than that spoken in the nearby region of Brazil - a kind of positive transfer, in other words.

On a point of methodology, he contrasted his findings with the Portuguese spoken by native speakers on the other side of the border, to ensure that his samples of interference were not merely features of the local Portuguese dialect, perhaps diachronically affected by proximity to Uruguay.

Very interestingly from the point of view of the possible effect of attitudinal factors on the amount of CLI that takes place, he noted that one informant, who vastly preferred Portuguese to her native Spanish due to some unnamed traumatic childhood experience involving language choice, showed much lower levels of Spanish interference than the other informants.

Of course, the Portuguese spoken in Brazil differs in many respects from that spoken in Portugal. For a study of a similar nature regarding the Portuguese-Spanish border, we can turn to studies carried out in various Spanish-Portuguese border areas. Schmidt-Radefeld (1996) offers an overview. He cites Leite de Vasconcelos (1902), the "grand master of Portuguese dialectology", in naming seven regions in Spain and Portugal where "linguagens fronteiriços are spoken, and briefly outlines features of each, mentioning the incidence of interference from Spanish and Portuguese, but without giving examples.

De Rezende (1981) provides a fascinating account of the geography, ethnography and language of the border area between the Portuguese Alentejo and the Spanish Extremadura. As well as providing the intriguing detail that there

²² *cozinha* does exist in Portuguese with the meaning of "kitchen"; Spanish *cocina* is in fact equivalent to "kitchen" and "stove", so what is actually being transferred into Portuguese is the semantic extension of the Spanish lexical item.

appears to be more interlingual interference in areas where smugglers operate, she outlines points of phonology, lexis and syntax where Spanish and Portuguese affect each other. One of the towns she studied was Olivença, a disputed area, originally Portuguese and now Spanish; interestingly she found that interference from Spanish into Portuguese was tolerated, but the converse was strongly resisted. This phenomenon tied in neatly with different attitudes vis-à-vis the two languages; though not regarded negatively *per se*, Portuguese was considered old-fashioned, the language of agriculture and an oral language, not taught in schools and little used by younger generations amongst themselves, whereas Spanish was regarded as prestigious, the language of government, school, church, and social advancement, and the route to an *emprego lempinho*, a “clean” (i.e. non-agricultural) job.

Finally, though not strictly speaking research, we may mention Cuesta and Mendes da Luz (1961) who, in their Portuguese Grammar specifically intended for speakers of Spanish either as L1 or L2, describe Spaniards who, after living 20-30 years in Portugal, "se expresan en algo que ellos erroneamente juzgan Portugues y no es sino un espanol corrompido por la intromision de vocablos y locuciones propias del idioma hermano" (10) ²³

2.8 .Summary

In this chapter I have examined the where?/ why?/ when?/ what?/ who?/ and how much? of C.L.I. As has been seen, many factors, along several different dimensions, have been invoked as possible/probable causes of C.L.I. and as factors affecting C.L.I.

It has been seen that C.L.I. is characterised by variability; the amount of transfer taking place varies from learner to learner, and (even within the same learner), from task to task and from situation to situation.

There seems to be general agreement, but not unanimity, that C.L.I. occurs

²³ It is worth noting, though, the breathtaking racism of these authors when explaining the spread of Portuguese through the colonies, which would be unpublishable today: "el portugués - idioma incomparablemente más rico y desarrollado, vehículo de una civilización más avanzada y símbolo de superioridad racial" (231) "Portuguese - an incomparably richer and more developed language, vehicle for a more advanced civilisation and symbol of racial superiority". One does wonder how much faith one may put in their purely grammatical affirmations.

more often in the classroom situation than in naturalistic learning; and there is disagreement among researchers as to whether it occurs less at later stages than at earlier stages, or whether it is merely qualitatively different at later stages.

It has also been seen that there is general, although again not unanimous, agreement that C.L.I. can take place at both a conscious level (as a strategy) and at an unconscious, automatic level.

There would appear to be several, mutually compatible and probably interacting reasons for the occurrence of C.L.I.; at the linguistic level, the permeable nature of interlanguage, which makes it open to external influences; at the psychological level, the nature of human cognitive processes, as well as attitudinal factors, fear of loss of identity, and the like.

All areas of language can be affected by C.L.I., although it is often claimed that morphology is less affected than other areas. Exactly which items are likely to be transferred, seems to depend on rather abstract criteria of "markedness", parameter setting, and stability; however, conclusions pertaining to this dimension should probably still be regarded as tentative. We also saw that there may well be a fair degree of universality regarding what is transferred from a given language in different situations.

I went on to discuss the issue of "psychotypological distance", and its influence on the amount of C.L.I. taking place. I recalled that C.L.I. can have many manifestations, apart from overt transfer, and commented on the difficulties of measuring its occurrence. Finally, I touched on studies concerning cross-linguistic influence between Spanish and Portuguese, as these are the two languages focused on in my research.



3.L2-L3 TRANSFER

In this study, as outlined in the introduction, I will be examining transfer from a previously learnt L2 to an L3. In this section I will outline previous research in this area, before discussing possible reasons why L2-L3 transfer should occur.

3.1 L2L3 Transfer in General

3.1.1 Previous Mentions

Previous writing in the area of L2/L3 transfer can be ranged along a continuum from the purely anecdotal to the research- based. Anecdotal evidence abounds. Every multilingual can quote examples from their own experience of how their foreign languages interfere with each other. I was recently told by an English-speaking colleague that when speaking Spanish she regularly produces verb-forms consisting of a Turkish root and a Spanish inflectional ending. Another told me that, when learning Spanish as a fluent speaker of Italian, she frequently found herself producing Spanish nouns with Italian plural endings (as well as Spanish verbs inflected in the Italian way). I include these as striking (and presumably not unique) examples of transfer of bound morphology. To give another example, Selinker (1966), in the introduction to his thesis, describes how his wife's L2 (French) rather than her L1 (English) interfered in the early stages of her learning of Hebrew: "she was consistently observed placing French lexical items and French gender concord into her Hebrew utterances" (p.4). (bound morphology again, in the latter case).¹

Several researchers writing on transfer in **general** (Nemser and Slama-Cazacu, 1970; Mërio, 1978), without giving concrete examples, cite other languages learnt as constituting the foreign language learner's specific stock of knowledge which may influence her acquisition of the foreign language, causing idiosyncratic variation. A learner with previous knowledge of another foreign language will acquire a new language in a different way from a monolingual learner in the same learning

situation, with the same mother tongue, and the same psychological characteristics. Zobl (1993) presents tentative evidence to suggest that multilinguals are readier to accept less conservative, more inclusive grammars than unilinguals. In several places, Cook (1991; 1992; 1993; 1995) urges a far greater awareness of what he terms "multicompetence", "the compound state of a mind with two grammars" (1991 p.112): on the basis that the majority of the world's people grow up speaking more than one language, this ought to be regarded as the "norm". Specifically regarding cross-linguistic influence, Cook uses the concept principally to explore the issue of L2-L1 transfer, but I suspect that he would not deny the likelihood that in multicompetent individuals, the "flow" of crosslinguistic influence is going to be multidirectional. E. C. Klein (1995) presents evidence that multilinguals may outperform unilinguals in their learning of both lexis and syntax, due to their heightened metalinguistic awareness and less conservative learning procedures, which - according to Klein - help accelerate the re-setting of UG parameters.

In most cases, the phenomenon of L2-L3 influence appears to depend on a degree of similarity between the two languages. To quote, for example, Sweet (1899,1964):

"The resemblance between (Danish, Norwegian, and Swedish) is, indeed, so strong that it is practically impossible to keep them apart: a foreigner who has learnt to speak Danish fluently, and then goes on to learn Swedish, will soon lose the power of speaking the former language, and will not regain it till he has forgotten his Swedish. A further study of Norwegian, which is intermediate between Danish and Swedish, will cause still greater confusion" (54)

Nababan (1971) also claims that L2/L3 transfer is common when the two languages are cognates. He cites the example of Indonesian learners of English, who transfer from their previously learnt Dutch, both in the area of lexis and of grammar: he gives as examples the use of the present perfect where the simple past would be appropriate, and the literal translation of idiomatic phrases; however he quotes no experimental evidence.

James (1971) appears to take as a given that "the weaker L2 habits interfere

¹ This question of bound morphology is a very interesting one. It is not "supposed" to happen (see 2.4.1); I wonder if it could be a feature mainly of this type of transfer (L2 > L3), a crucial way in

more with the L3 than L1 habits” (irrespective of whether there is similarity), then to attempt to explain it in terms of L2 affecting what he calls “such higher level features as phonotactics, allophonics and lexis”, while L1 affects “low level features”, which he does not define or exemplify, but which he implies are less “superficial”.

3.1.2 Previous Research

Such general observations are relatively frequent; however, empirical evidence is rather more sparse. Duskova (1969), in her analysis of Czech speakers' lexical and grammatical errors in English, mentions some minor interference from other foreign languages (German and French), but claims it is negligible. Some other writers have accorded more importance to it, however. We will now look at studies in the areas of lexis, syntax and phonology, and then at some more general studies.

3.1.2.1. Lexis

The best-known work in this area is that which has been carried out in the Abo area of Finland with the bilingual (Finnish/Swedish) population. (Ringbom, 1987; Sjöholm, 1979 and 1983) This research deals with the acquisition of English as a foreign language, focussing particularly on lexical learning. Observation of learners has shown significantly more errors attributable to Swedish than to Finnish, irrespective of whether the learner's L1 is Swedish or Finnish. In a further analysis, however, Ringbom (1986; 1987) found a difference between what he terms "transfer" and "borrowing". The former refers to the extension of the semantic properties of the L1/L2 word to the L2/L3 translation equivalent, termed "underdifferentiation", (e.g. "he bit himself in the language", where Finnish "kieli" means both "tongue" and "language"; 1986 p.158) or to the combining of L2/L3 words in L1/L2-like patterns (e.g. "horses are the most dignified home animals", where Finnish "kotielain" - literally "home animals" means "domestic animals", p.158). The latter refers to the use of an L1/L2 word (or an adapted form of it) in the L2/L3 (e.g. "in the evening I was piggy", "piggy" being Swedish for refreshed). He maintains that, while it is very unusual for Finnish learners of English to resort to "borrowing" from Finnish,

which it differs from L1 transfer?

preferring to "borrow" from Swedish, which they perceive as closer to English, they may well resort to Finnish rather than Swedish when it is a question of a word's "semantic field" (as borne out in the above examples, all taken from L1 Finnish speakers). This would suggest that Finnish learners do not consider their L1 a useful basis for making predictions about English at a formal level, yet continue to use it at a semantic level. It is interesting to consider these findings in the light of Kellerman's concept of psychotypology (see Section 2.5); it appears these learners only apply their perception of the relative closeness of English and Swedish at certain levels of language, rather than across the board². Ringbom (1986) in fact asserts that it is really only in the area of lexis that L2-L3 transfer occurs to any significant degree.

In another study of lexis, Ulijn et al (1981) found strong evidence of French influence in the lexis of Vietnamese immigrants in the U.S., both in reception and production. This took the form of positive transfer in the case of cognates, and negative transfer in the case of false cognates.

3.1.2.2. Syntax

Khalidi (1982) carried out a study of acceptability judgement tasks involving relative clauses and idioms, administered to Algerian learners of English, in order to compare learners from a bilingual (French-medium) setting with learners from an "Arabised" setting (i.e. with no knowledge of French). He hypothesised that the bilingual learners would transfer from their L2 (French) rather from their L1 (Arabic), as long as they perceived the structure to be language- neutral. They did indeed perform better than the non-French speakers on the relative clause task: a case of positive transfer, French rules being closer to English than are Arabic ones. He also found transfer to decrease with proficiency.

In an earlier study of relative clauses, Schachter (1976) found that Arabic learners who were bilingual in French rejected non-native-like relative clauses (in English) which resembled Arabic but not French; a case of positive transfer resulting from the application of L2 knowledge. According to Khalidi (op cit.) this study is

² My own findings, as will be seen in Chapter 9, are rather different: it is precisely the semantic field of an item that is transferred from Spanish to Portuguese in the case of my subjects.

limited, because it merely describes the phenomenon without attempting to explain it.

Another example of possible L2/L3 transfer is reported in White (1987). In a comparison of English-speaking learners of French, on the one hand, and learners of French with other mother-tongues but with previous knowledge of English, on the other, she found that the latter were more likely to accept incorrect preposition stranding in French.³ She suggests that this might well be due to transfer from English. There seem to be some unanswered questions here, however; such as do we know whether the L1 of the non-English- speakers allows preposition-stranding or not? And why did the English speakers not transfer from their L1? Perhaps because they regard preposition- stranding as language-specific and not transferable, or maybe this is an example of multilinguals having less conservative grammars.

White (1988) also offers a re-interpretation of some data from Adjemian and Liceras (1984) in terms of L2-L3 transfer. The latter researchers, investigating the acquisition of relative clauses, found that not only were English learners of French liable to transfer the omission of relative object pronouns in restrictive clauses (empty COMP) into French (a straightforward transfer from L1); so too did French N.S. learners of Spanish produce this structure in Spanish, even though Spanish resembles French in not allowing it. As the latter learners also knew English, L2-L3 transfer certainly appears to be a plausible explanation for this otherwise surprising fact, though apparently it is NOT the explanation offered by the original researchers.

3.1.2.3. Phonology

There has been little research concerning L2-L3 transfer on the phonological level. Ringbom (1986) holds that the L1 phonological system is so "deeply entrenched" that it changes only with considerable conscious effort. Haggis (1973), found Ghanaian Twi-speakers showing far more evidence of (L1) Twi than of (L2) English

³ There is a complicating factor here in that colloquial Quebecois French does allow some preposition-stranding, perhaps due to language contact with English in the bilingual situation; this does not mean we have to dismiss the possibility of transfer however. In fact this may be a feature of bilinguals of English and another language which does not allow preposition-stranding; a young (4) bilingual Colombian friend of mine apparently regularly produces utterances like "¿Qué es esto para?" instead of "Para qué es esto?" ("what's this for" - literally "for what is this?")

influence in their pronunciation of French.

Singh and Carroll (1979) on the other hand, demonstrate that their Indian informants are influenced by English rather than by their Indian L1s in their pronunciation of French. So, the small amount of evidence in this area would seem to be contradictory; we can only assume that whether the learner resorts to the L1 or to the L2 in phonology must depend on some other, possibly non-linguistic variable - affective factors, for example.

3.1.2.4. Reception

Ringbom (1992) reminds us that in terms of the acquisition of receptive skills, and particularly reading, positive transfer can be of great facilitative value to the learner where the target language is similar to an already-known language. Regarding the case of L2-L3 specifically, Odlin cites some evidence (Singleton and Little, 1984) from English native speakers attempting to read in Dutch (in which they had received no instruction): those who had previous knowledge of German had considerably more success at the task.

3.1.2.5. Studies Involving Various Levels of Language

An earlier study of learners of English with Arabic L1 and French L2, this time in Morocco, was carried out by Bentahila (1975). It took the form of an error analysis of a corpus of their phonological, grammatical, and lexical errors, which was then submitted to experienced teachers of English from other Arab countries: Algeria, where the learners would also have had previous knowledge of French; and Iraq and Kuwait, where French is **not** an L2. Their task was to judge whether or not these errors would be typical of their own learners. At each level of proficiency, it was judged that Moroccans and Algerians (i.e. French L2 speakers) would make similar errors, which would be different from the errors made by Iraqi and Kuwaiti learners. In my view, however, this study is rather invalidated by the fact that the "corpus" appears to be hypothetical, invented by the author on the basis of his teaching experience, rather than to be a true corpus of learner data.

A more valid study in this respect is that of Ahukanna, Lund and Gentile (1981)

which involved Nigerian learners of French with Igbo L1 and English L2. According to results of judgement tasks, involving grammatical and lexical choices, the L2 was a significantly greater source of incorrect judgements than either the L1 or intralingual errors. A limitation to the study, readily admitted by the authors, is that only recognition tasks were administered; there was no production data.

The Kassel Psycho- and Pragma-linguistic Research Group provide some interesting data. For example, Bartelt (1989), in a study of Yaqui Indian trilinguals in Arizona, found they made use of syntactic and semantic knowledge of their Spanish L2 rather than their Yaqui L1 in describing spatial relations in English, in a narrative context. Bartelt used Chafe's "Pear Stories" to elicit his narratives, as did Mohle (1989) (also of the Kassel group) in her study of German undergraduate learners of Spanish. Mohle found a great deal of influence from French, particularly in lexis, with even the English specialists, who had not studied French for a long time, displaying more transfer from French than from English; and she found L1 German influence to be almost non-existent. Both of these studies are described in Dechert and Raupach (1989).

A fascinating diary study described in Schmidt and Frota (1986) describes the influence of Arabic L2 on Schmidt's learning of Brazilian Portuguese (despite the fact that he had not lived in an Arabic-speaking country for 8 years). He attests to influence on phonology (where there was a certain similarity), lexis⁴ and syntax: omission of indefinite articles and omission of the copula verb.⁵

To conclude this section, we should mention the work of Raabe (1986), who analysed the metalinguistic questions of classroom learners (L1 German-speakers learning French). He found that 4% of their questions made explicit reference to another foreign language (English). He claims that there is a qualitative difference

⁴ "borrowing" rather than "transfer" to use Ringbom's terms (see 3.1.2.1.) (this is consistent with Ringbom's findings that "borrowing" is more likely to occur between L2-L3 than "transfer").

⁵ In the case of the syntax, he does discuss other plausible explanations. Portuguese also sometimes omits the article where it is required in English (e.g. *é medico* - "he's a doctor"); however, rather than an alternative explanation, this could perhaps be a case of influence being reinforced by a feature in the L3. Omission of the copula could reflect the telegraphic style which is also a feature of First Language Acquisition; however, again, this could be another form of reinforcement rather than an alternative. This dual causality of error is consistent with Selinker's Multiple Effects Principle (Section 1.3.3)

between L1 and L3 influence, in that questions involving the L3 usually involved "explicit, earlier-learned rules or more clearly outlined earlier-learned concepts", while the rules and concepts underlying questions involving the L1 tend to be present in an unconscious form. I suspect that the situation might very well have been different had their foreign languages been learnt naturalistically; are we really talking about a difference between L1 and L3 influence, or a difference between learning contexts? .

3.2. Previous Research: Spanish-Portuguese Transfer

There has been very little mention in the research literature specifically about the case of transfer between Spanish L2 and Portuguese L3. Yet it is a phenomenon which most teachers of Portuguese instantly recognise. Most of the (little) work I was able to find in this area consists of advice to teachers (Azevedo, 1978, Chandler, 1958; Teixeira-Leal Tarquinio, 1977), which, useful as it is, and based on solid experience, does not really constitute systematic research. Muller and Muller (1968) is a research-based paper, but firmly behaviourist in approach, on the influence of orthography on the pronunciation of Portuguese by native speakers of English, particularly when the learner "has learned to respond orally with relative accuracy to written stimuli in a second language whose orthography is similar to English". (203) No specific second language is cited, but we can safely assume that in many cases, in California where this research was carried out, Spanish would be involved.

Hensey (1967) discusses his own observations of the phenomenon, while admitting that he speaks of observation, not of controlled experiment. Interestingly, he speaks of noticing similar phenomena among three different groups of learners of Portuguese: (1) English L1 students in a classroom situation; (2) Spanish L1 students in a classroom situation, and (3) Spanish L1 speakers living on the Uruguayan/Brazilian border, in a language contact situation, speaking both languages from childhood. These similarities led him to assert his belief that if there was a difference it was only in degree but not in kind; that basically the same processes were underlying the interference from Spanish in all three situations. More experiment is obviously needed, but the implication that there is no qualitative

difference between L1 and L2 transfer, and between transfer from a language learnt in the classroom and one learnt naturalistically, would seem to point to at least a certain amount of universality in transfer mechanisms. This would imply that Burt and Dulay were perhaps mistaken to discount the evidence for transfer offered by the bilingualism/language contact studies. (See also the work of Lipski, mentioned in Section 2.4.)

3.3 Reasons for L2/L3 Transfer

Why, then, should learners be more ready to transfer from the foreign language than from their mother tongue? The reasons that have variously been proposed in the literature are relatedness, recency of acquisition, “psychological similarity”, differential storage, “foreignness”, socio-cultural reasons, and “vividness”. I will examine each of these in turn.

3.3.1. Relatedness

The notion of psychotypological distance would seem to provide an intuitively satisfying explanation and is the one most widely accredited in the literature. The Finnish learner (for example) is more aware of the similarities between English and Swedish than of the differences, so tends to transfer; she is more aware of differences than of similarities between English and her native tongue, so does not attempt to transfer. Bentahila (1975) suggests that perceived similarities between French and English might account for his Moroccan learners' errors; likewise, Mohle (1989) attributed her results to the closer relationship between the two Romance languages in question (See 3.1.2.4). Vildomec (1963) from his analysis of the errors in the written and spoken language of multilinguals also concluded that similarity between two languages led to the transfer of actual "material", as well as of word order and omissions.

Sharwood Smith (1992) discusses this idea within the UG paradigm, suggesting that L2-L3 transfer can be explained if we accept the "resetting view" on access to UG (Section 2.4.2.3):

"the possibility exists that the initial template for the new language

system may in fact not be the mother tongue but another language known to the learner and which the learner perceives to be genetically close" (p161)

In relation to the question of the extent to which perceived language distance reflects actual distance, Chumbow (1981) found that the more two languages were related to one another, the more likely they were to be associated with each other by the learner. He looked at African learners of English with French L2, and learners of French with English L2, and found that "in learning a foreign language, one language functions in a special relationship with the target language"; he calls this "mother tongue effect", while stressing that the language in question need not in reality be the speaker's mother tongue. He actually devised a system for predicting, in the case of multilingual subjects, which of their languages is a likely candidate for interference. (However, I applied this to Spanish/Portuguese and found that it was not predictive in the case of these two languages).

3.3.1.1. Learning a Related Language: Advantage or Liability? (a digression)

Proponents of Contrastive Analysis initially believed that the greater the distance between two languages the greater the scope for transfer to occur. However this was later questioned from within the field. For example, Lee (1968), in a summing up of the theory of C.A. as applied to language teaching, had this to say:

"Objection should be made to the view that the bigger the difference between the two languages the more difficult it is to learn the foreign one....very great dissimilarity may help to lift the learner clear, so to speak, of his previous language configuration, of his customary way of looking at the world through language, and may place him in a fresh orbit." (188)"

He compares his own learning of Chinese with his learning of Italian when he had previous knowledge of Spanish; he eventually gave up Italian because of the difficulty he had in separating it from his fairly advanced Spanish. Nickel (1971) explains the phenomenon thus:

"Since formal correspondence tends to more or less automatically arouse functional-semantic hopes of equivalence, relationship may be quite dangerous. All learners of Romance languages will know the difficulties when learning the second or third Romance language." (223)

Ringbom (1978) fears that too much focus has been laid on the notion of similarity between two F.L.s as representing an obstacle; he prefers to stress its facilitative value:

"Because so much of his mother tongue knowledge (grammar and vocabulary) is relevant for the learning of another language, it can be argued that the Swede has an intuitive knowledge of English automated in his mind even before learning starts"(p.22)

He does however, admit that this ease of learning, while useful for attaining a fairly low level of communicative competence fairly quickly, could be an obstacle to thorough mastery of the foreign language. He makes an analogy with sports: he compares two learners of squash, one previously a tennis player, the other previously a footballer. He maintains that the tennis player has an initial advantage, - because, for example, he is used to using a racket - but that the very similarity of the two games will cause the subtle differences between the techniques of the two sports to elude him.

Some of Vildomec's (op cit.) informants also mention the beneficial influence of similar languages on new foreign languages, because of the ready-made "passive knowledge" which they are provided with.

It should be pointed out that several writers have chosen to differentiate between reception and production here. For example, Laroche (1981) questions the "popular wisdom" that the closer languages are, the easier they are to learn because of grammatical similarities and cognates. He claims that similarity **is** an aid to understanding, but not to production, in that we recognise cognates, but cannot know in advance whether an L1 form can be used in the L2 or not. Ringbom (1990; 1992) recognises that it is firstly reception/comprehension which is facilitated by similarity, but points out that this does indirectly have a positive effect on production too: the more easily the input is understood, the sooner it can facilitate acquisition.

Laroche (op cit.) in fact goes on to claim that where languages are close enough to be mutually intelligible people do not try to learn the target language (his examples are that Swedes do not try to learn Danish, nor do Americans normally attempt to learn British English.) An interesting example of this type of phenomenon is the "cocoliche" spoken by Italian immigrants in Argentina, really a variety of

Italian with an approximation to Spanish phonology and some Spanish lexis (see Whinnom 1968). Kellerman (1983) also supports the view that interference is resistant to eradication where the differences are minimal.

To sum up, it seems that for beginners it is probably advantageous to have previous knowledge of a related language when embarking on the learning of a new language, particularly regarding reception, whereas in the later stages it may conceivably stand in the way of achieving native-like competence.

3.3.1.2. Counter-evidence

However, not all research evidence supports the general tendency towards findings that learners transfer from the closest language, whether that is L1 or L2. Gonzalez-Mena Lococo (1976) compared children learning English as their L3 at a bilingual school. There were two groups, those who had German as their L1 and Spanish as their L2, and those who had Spanish L1 and German L2. It was found that their stronger language interfered, whichever it was. According to the construct of “perceived language distance”, we would have expected German to interfere with English across the board. This is interesting in the light of the findings from the pilot study described in Chapter 6.

The other study containing counter-evidence is the one by Haggis (1973), previously mentioned in Section 3.1.2.3, in which he compared phonological interference in Ghanaians' French and found that:

"Dans le cas du français, les interférences provenant de l'anglais sont beaucoup moins importantes que celles provenant du twi. Ceci va à l'encontre de l'opinion fréquemment exprimée, que, dans une telle situation trilingue, la deuxième langue influence beaucoup plus la troisième que ne le fait la première". (43)

Moreover, he found that those phonological errors which **did** appear to be due to English interference were mainly a result of orthography.

To conclude this section, it should be recalled that in Ringbom's studies (Section 3.1.2.1), we saw that lexical transfer did not occur across the board; rather Finns transferred from Swedish L2 (the related language) to English when it was a question of "borrowing" - perhaps as a strategy - but resorted to Finnish when it was a

question of extension of semantic properties - at a more unconscious level, perhaps.

3.3.2. Recency

Bentahila (1975) posits a "recency effect", ("last in, first out"); this would imply that whatever the last learned foreign language was, it would interfere with the next-learned one. Rivers (1979) in her diary study about her learning of Spanish in South America, does say that it is the most recently learnt of her two weakest languages (German) which interferes more than the other weak language (Italian); but both seem to interfere less than French, the foreign language in which she is most fluent. Moreover, as seen in Section 3.1.2.1, Swedish-speaking Finns learning English do not resort to their L2 Finnish, even if it is their most recently learnt foreign language. It seems, then, that recency could be one factor, but certainly not the only or the principal one; it may be that it becomes decisive when all other factors (fluency, degree of relatedness...) are more or less equal.

3.3.3. Psychological similarity

Vildomec (1963) claims that influence between two foreign languages is more likely to occur if there exists a "psychological similarity" between the two languages for an individual learner. By this he means if they were learnt by a similar method, in a similar milieu, and if there is a similar emotional involvement with the two languages.

3.3.4. Language in the Brain: Neurological Questions

Perhaps part of the reason for learners having recourse to their L2 rather than their L1 has to do with the way these respective languages are stored. Are all languages stored in a similar way in the brain, or are later learnt languages stored differently from earlier learnt languages? If the latter is the case, it is likely that, in attempting to retrieve an item in a given foreign language, the learner may retrieve an item from another foreign language instead - and not from her L1, which may be stored elsewhere or in a different way.

An early neurologist, Scoresby-Jackson (1867), was very specific: he claimed

that additional languages are stored in the anterior part of the third left frontal convolution. Since then, theories have abounded. Whitaker (1978) maintains that all languages, whether earlier or later learnt, are stored in the same way, backing up this argument with data from aphasia studies. The truth is that this question has still to be satisfactorily answered; Cook (1992), after reviewing relevant literature tentatively concludes that it is very likely that foreign languages are stored in the same hemisphere as L1's (i.e. largely the left), but not necessarily in identical ways. He quotes Zatorre's (1989) view that not just different languages but also different aspects of language may be stored in different areas - to think of "L1 storage sites" and "L2 storage sites" may be over-simplistic (573).

Perhaps the most compelling evidence comes from Kim et al (1997), who compared six "late" bilinguals (who had learned a second language as adults) with six "early" bilinguals (who had been brought up to be bilingual). They used magnetic resonance imaging to measure neuronal activity, as the subjects alternated between their two languages to perform a silent description of the previous day's events. The measurement involved two areas, Broca's and Wernicke's. For Broca's area, different areas appeared to be activated in late bilinguals, while for the early bilinguals there was a lot of overlap between the areas activated by each language. In Wernicke's area, on the other hand, similar areas seemed to be activated by either language, irrespective of the speaker. In other words, whatever it is that is going on differently in adult speakers' brains when they speak a foreign language (and thereby, conceivably, what is causing them to transfer between their foreign languages, in the case of speakers of more than one language) is happening in Broca's area. The researchers appear to suggest that it is a question of phonological discrimination, but it is hard to see on what this claim is based - particularly if the task in question was performed silently.

Meisel (1983) posits neurological causes when specifically addressing L2-L3 transfer, at least as regards learning in a classroom setting. He maintains that L2-L3 transfer, in the form of transfer from English lexis and syntax into French among young German learners, is well-documented. However, he claims that

"It is not at all obvious that the conditions on the application of

transfer strategies from L1 or a foreign language are identical" (p.18) and goes on to suggest that if first and second languages are stored and/or processed in different ways, - if L2 and L3 are processed by the same cognitive structures, which are different from those used for processing L1, - then it is only logical to assume that there will be transfer from L2 to L3, rather than from L1. As an explanation, this seems intuitively appealing; it might help to explain, for example, why White's L2 speakers of English transferred preposition-stranding into French while L1 English speakers did not; and it might shed light on the not uncommon occurrence of transfer of bound morphology from L2-L3 compared with the almost non-existence of L1 transfer of this kind. It is not very clear whether he is excluding naturalistically learnt foreign languages from this hypothesis or not; though if we are talking about the area of the brain used for storage, it is hard to see how there could be variability in something so physical.

Moreover, it cannot explain the Abo findings, wherein almost none of the errors made by Swedish L1 learners of English exhibited the influence of Finnish, their L2. If Meisel's hypothesis were correct, would we not expect to find Swedes making as many Finnish- based errors as Finns making Swedish-based errors? This kind of evidence makes a blanket differential-storage hypothesis unconvincing as it stands, although it is possible that it might, for example, apply to some aspects of language and not to others. Then again, it might depend on the actual languages involved; Whitaker, cited in Schönplüg (1983) did admit the possibility that dissimilar languages might be stored separately, but not similar languages.

3.3.5. General "Foreignness"

Nickel (1971) has an explanation which seems to synthesise some of the above viewpoints:

"Undoubtedly difficulties arise also from the fact that more than one target language is being acquired. In some cases, especially at a beginner's level, this interference may be even stronger than the interference between mother tongue and first target language. In trying to get away from his mother tongue a learner will, often subconsciously, decide to choose an item from another target language rather than fall back on his mother tongue. There seem to be situations

in which the opposition is mother tongue on the one hand and target languages on the other. This attitude towards target languages as a kind of a pool has to be considered when judging errors made by learners with more than one target language especially when the target languages are also related among themselves. (225)

Schmidt, in Schmidt and Frota (1986), also produces the metaphor of a "translate-to-foreign program", regarding his experience of learning Portuguese after Arabic; in his diary he laments that "Arabic words slip out of my mouth at the darndest times, not when I realise that I don't know a Portuguese word and am groping, but just automatically, fluently, unreflectingly" (255). In his case it is a completely subconscious phenomenon.

A similar idea, though expressed as a more conscious phenomenon, is James' (1971) "psychological set": "the learner realises that success in foreign language performance involves excluding the L1...and feels that anything is better for foreign language performance than L1 material" (62). This might account for what happened to Rivers (1979): she claimed to experience interference, on different occasions, from all of the foreign languages she had previously studied - German and Italian, in which she was not very proficient, as well as French, in which she was fluent and which was typologically close to Spanish. However, she does say that the influence was mainly lexical from the weaker languages, whereas it was only from French that she experienced structural interference. She mentions specifically that she had no problems with gender, because it seemed to her to be part of "speaking foreign", given that it was a feature of all the foreign languages she had learnt.

Bartelt (1989) remains unsure whether his Yaqui Indian speakers of L3 English (see 3.1.2.4) transferred from their Spanish L2 rather than Yaqui L1 because of the perceived similarity between Spanish and English, or whether this was an example of a more generalised recourse to L2 rather than L1 in L3 strategy-building. In support of the latter possibility, he cites Fitzgerald (1978), who found learners transferring more from L2 Spanish even where the L3 was a specially designed **neutral** artificial language.

Similarly, Selinker and Baumgartner-Cohen (1995), use the term "talk foreign" .

On the basis of data from classroom observation and diary studies, they attempt to determine whether there are particular principles underlying the "mixing and merging of interlanguages" that they find. They discover "multiple effects" which may contribute to L2-L3 influence: physical phonological resemblance (syllable structure, vowels, stress patterns); the existence of the substituted word (or similar) in the L3, in the same word-class, albeit with a different meaning; syntactic similarity. These effects can be strengthened if the L2 resembles the L1⁶. They also mention more global influences, such as L1 English speakers applying the Latin case system to German.

The ideas and examples cited here clearly illustrate a different phenomenon from that of differential storage described in 3.3.4, as it is essentially a psychological rather than a neurological notion.

3.3.6. Socio-cultural Issues

An alternative reason for L2-L3 influence is put forward by Singh and Carroll (1979); they suggest that their Indian informants' transfer from English (L2) rather than L1, could be due to a feeling of "disidentification with their L1, against the background of the strong position of English as the language of government, administration and education". In other words, for these writers, the reasons are sociocultural rather than educational or linguistic. This argument, in the case quoted, does not actually clash with the notion of psychotypological distance, as the Indian learners would probably, in any case perceive English and French as being closer. To test the soundness of this argument, we would need to examine whether they still transferred from English when learning a language which was actually closer to their L1.

Again, socio-affective factors might be put forward as an alternative explanation for why Swedish-speaking Finns do not transfer from Finnish to English. Lack of L2-L3 similarity has already been suggested; but this might well be reinforced by the negative attitudes felt by the Swedish minority towards the majority language

⁶ The example given is of an English NS with knowledge of French inventing a German verb "pagen" to replace the German word "bezahlen", to pay.

Finnish⁷.

We will be examining affective/socio-cultural factors in more detail in Chapter 5.

3.3.7. Contact with the L2; "vividness effect"

One more possible reason, cited in Stedje (1977), regards a slightly unusual situation, that of Finns studying German at Stockholm University. He finds influence from Swedish (i.e. their L2) rather than Finnish (i.e. their L1) on their German, but rather than attributing this to similarities between the two foreign languages, he regards it as due to their having greater contact with Swedish while living in Sweden, with having the language more "vivid in their minds"⁸. As control evidence, he claims that the Swedish transfer effect is insignificant in Finns newly arrived in Stockholm. I suspect though that "vividness" alone may not be sufficient. This is more likely to be an interaction effect, combined with relatedness between the two foreign languages; I doubt that if these same Finnish learners were to learn German while living in China and studying Chinese, there would be quite the same L2-L3 effect.

3.4 L1-L2 / L2-L3: the Same Phenomenon?

We will conclude this chapter with a discussion of a question which has been touched on briefly at various points: whether the kind of influence which occurs from L2 to L3 is similar to that which occurs from L1 to L3. So, for example, would a Spanish native speaker learning Portuguese transfer in the same way as a learner for whom Spanish was an L2? This question has important implications for the issue of differential storage: if L1-Spanish learners of Portuguese evince **different** patterns of Spanish influence than learners with Spanish as L2, this would lend support to arguments that L2s are essentially different from L1s in terms of storage and processing; such would not be the case if we find that both types of learner transfer in

⁷ It should be pointed out here that they are in many ways a privileged minority; their negative feelings are more ones of superiority than ones of an oppressed group towards the oppressor.

⁸ Vildomec (1963) also writes of some languages being more "vivid" than others in the minds of his multilinguals.

identical ways.

Hersey (1967) claims to have affirmative evidence for similarity between L1/L2 transfer and L2/L3 transfer, collected from error analyses of both classroom and naturalistic learners. He found striking similarities across three types of learners (English N.S.; Spanish N.S. - classroom learners; Spanish N.S. - naturalistic learners) in the kinds of errors that would be predicted by C.A. What differences there were, he claimed, were of degree not of type. On the other hand, at least Raabe (1986) (see 3.1.2.5 – including my caveat) and Ringbom (1987) (see 3.1.2.1) claim to have found qualitative differences. The latter's claim, that L1 exerts greater influence on the L3 at the semantic level than does L2 on first sight seems to be in contradiction with Hersey's findings; but closer examination reveals that Hersey does not break down his categories to the same extent as Ringbom; so, for example, "lexis" is treated as a single category, rather than being sub-divided according to whether the lexical error is formal or semantic.

In a preliminary study of my own (Benson, 1990), I had one subject who was a Chilean N.S. of Spanish, and it was interesting to observe her marked tendency to avoid transferring from Spanish to Portuguese, compared with L2 Spanish speakers. On one judgement test, she made consistently correct judgements in every case where Portuguese differed from Spanish, yet occasional erroneous judgements where application of L1 Spanish knowledge would have helped her⁹. Here she differed from the N.S. of English in that the other two subjects (out of 22 in total) who consistently judged correctly where Portuguese differed from Spanish made more correct judgements than she did where Portuguese resembled Spanish. In other words, for the L2 Spanish speakers, there was **more** transfer from Spanish, both positive and negative. The structures involved in this test (verbs of existence – see Chapter 4) are formally very similar across the two languages, but with a major difference regarding division of semantic space, which was perhaps more salient to her than to N.N.S. This does not lend support to Ringbom's (op cit.) view.

Regarding the other structure under investigation (placement of clitic pronouns;

⁹ Yet in a production test of the same structure, all her answers were correct; accuracy in performance here masking incomplete acquisition, a la Coppetiers (1987)

see Chapter 4) in my study, her behaviour again differed from that of the L2 Spanish speakers, in that she avoided transferring the Spanish rules to Portuguese, even where to do so would have led to accuracy. Again, I wonder whether the differences were more salient to her than to the L2 speakers. Of course, no conclusions can be drawn from the data of one individual subject; it was a finding which was “stumbled upon” by chance, not deliberately sought, but interesting enough to merit comment and spur further research nevertheless.

Clearly, the question of whether L1-L2 and L2-L3 transfer work in the same way is as yet unanswered.

3.5 Summary

In this section I have discussed previous writing in the area of L2-L3 influence, a phenomenon which most scholars (and teachers, and indeed lay people) are willing to attest to, but which few have examined empirically. There is some disagreement as to the importance of the role of the L2 in the acquisition of the L3, but few would deny its existence completely. There is a small body of evidence of its occurrence in the areas of lexis, syntax and phonology, involving a variety of native and foreign languages; on the other hand, there seems to be a small amount of counter-evidence as well. Specifically regarding Spanish and Portuguese, the two languages we are concerned with, we found several mentions of the phenomenon of mutual influence, but very little empirical investigation.

Several possible explanations for L2-L3 influence are given in the literature. The most frequent is "relatedness"; most researchers appear to agree that if the L2 is perceived as closer than the L1 to the language being learnt, then the learner will prefer to transfer from the L2 than from the L1. This is, then, postulated as the primary linguistic cause. Other reasons which have been put forward tend rather to be psychological or sociological in nature: similarity of "psychological set" in the learning of the L2 and of the L3; the possibility that foreign languages are processed and "stored" differently from the mother tongue but similarly to each other; a reluctance to fall back on the L1 because of a general feeling of the commonality of all things foreign; the "vividness" of the L2; a sense of identification with the L2

culture/ alienation from the L1 culture.

I assume that L2-L3 influence is more likely to be due to an interplay of various of the above reasons, than to one of them in isolation. I do, however, accept the evidence which points to the importance of the role of psychotypological similarity, and assume that the psychological/sociological factors inter- relate with this linguistic factor. I would be more reluctant to accept those explanations which seem not to take into account the nature of the individual languages in question, (such as the notion of differential processing and storage in the brain), because of the evidently variable nature of the phenomenon: it appears to occur more with some learners, some learning situations, and some languages, than with others. Such variability needs to be accounted for.

I should mention here another factor which may or may not be a precondition for L2-L3 transfer: proficiency in the L2. Ringbom (1983) claims that it is necessary for the learner to be proficient in the language being transferred from. Rivers (1979), on the other hand, cites her own experience of influence from all of her previously learnt languages, whether she was proficient in them or not; she does differentiate, however, maintaining that the influence from her weaker languages was lexical rather than structural. In any case, there would appear to be a degree of disagreement here.

Finally, I touched on the as yet unresolved issue of whether the kind of influence which occurs from L2 to L3 is similar to that which occurs from L1 to L3.

4. SOME LINGUISTIC CONSIDERATIONS

In this chapter I will consider the similarities and differences between Spanish and Portuguese in general terms, relating this discussion to the sociolinguistic question of the distinction between dialect and language. I will then turn to an outline of the rules, for both languages, regarding the two structures examined in the study: clitic pronouns and existential verbs.

4.1 Spanish > Portuguese: Language Acquisition or Dialect Expansion?

In Corder's (1979) terms, the learning of a closely related language could be regarded as merely "dialect expansion" rather than language learning:

"Where we have two different languages which are virtually so close as to constitute "dialects", e.g. Swedish and Norwegian, we may have to postulate that we are not concerned with language acquisition at all, but something we could call "dialect expansion". In such cases the learner already knows the target language and is concerned merely with discovering the purely superficial and trivial differences between his dialect and the target dialect." (34)

By extension, negative transfer could be considered merely inadequate expansion, rather than interference (if there is a difference). We will here address two questions: are Portuguese and Spanish two dialects or two languages? And does it matter? By which I mean, is there an essential psycholinguistic difference between learning a new language and learning a new dialect, or is it simply a matter of degree?

Whether two varieties constitute dialects or languages is a thorny issue; do we decide according to political or linguistic criteria? As Corder himself goes on to admit,

"This proposal sidesteps the problem of determining when dialect distance becomes so great that we have to do with different "languages".

Let us now consider the case of Spanish and Portuguese, in the light of both linguistic and sociocultural criteria. In terms of mutual intelligibility, these two languages could possibly be considered dialects, as most, but by no means all, Spanish-speakers seem able to understand enough Portuguese to communicate, and vice versa. In historical terms, again they could be considered dialects, as both derive from Latin. However, there is the question of how far back historically one has to go;

would we say that all Indo-European languages are dialects of one principal language, just because they have a common ancestor?

If we look at linguistic aspects in more detail, we will find some similarities which have become differences. For example, there are many false cognates in both lexis and grammar. To cite a few lexical examples: *todavía* (Spanish: temporal adverb, corresponding to "still", "yet"; Portuguese: "however") *acordar* (Spanish: "remember"; Portuguese "wake up"). While it is easy to see links between the Spanish and Portuguese meanings of these items, they are still sufficiently distinct as to be misleading to speakers of the other language. At the grammatical level, there are features which are formally identical across the two languages, yet different semantically, such as the *ser/estar* distinction which we will be examining in this work.

Moreover, there are many differences between the tense systems of the two languages. Both have a perfect tense, for instance, but there are differences in the ways they are used; in Portuguese, it is only used to denote a repeated past action. And Portuguese has verb forms which simply do not exist in Spanish: the future subjunctive and the personal (inflected) infinitive (e.g. *para veres...* = so that you can see"). I would at least tentatively suggest that such differences are more than "superficial and trivial", and that two linguistic codes which are thus different should, in spite of surface similarities, be regarded as two distinct languages. However, I would argue here that there is perhaps a need for standardisation in this area; for the establishment of objective linguistic criteria on the basis of which decisions can be made as to whether any two codes are two languages or two dialects.

On socio-political-cultural grounds, the answer is more clear-cut; Portugal and Spain are separate countries, with separate governments, and have been throughout most of their history; Portuguese and Spanish are universally regarded as different languages by native speakers and learners of either language; in terms of standardisation, dictionaries and grammars exist for the two languages. Of course, political criteria alone might be unhelpful if we are concerned with linguistic analysis, as for example mutually incomprehensible varieties of Chinese are regarded in China as dialects, on political grounds.

To sum up, then, we would claim that, according to most of the usual criteria,

Spanish and Portuguese do in fact constitute different languages. However, for the sake of argument, we will now address the issue of whether, if they were merely dialects of the same language, it would invalidate the inclusion of our study within the realms of Second Language Acquisition. Are language learning and dialect expansion different in kind or only in degree?

The main difference between language learning and dialect expansion might be that usually, in an interaction with a speaker of a foreign language, a speaker will assume that the foreign interlocutor does not understand the speaker's L1 (or in the case of our learners, their L2). c.f. Meisel (1983)

"Why should a person make use of L1 knowledge when he assumes that his interlocutor does not understand that language?"

With dialect expansion on the other hand, the speaker has plenty of reason to assume that the addressee will understand; so it is less risky, in terms of possible communication breakdown, to use the L1 (or L2, within the framework of this study). In other words, I would contend, that there will be far greater use of the L1 (or here, L2) as a communication strategy and as a learning strategy; however, all learners appear to make use of strategies to a greater or lesser degree, so in this respect, the Spanish-speaking learner of Portuguese could be said to have more strategies at her disposal, rather than to be proceeding in a way which is qualitatively different. Indeed, if transfer is defined as occurring when the "learner relies on previously learnt knowledge" (c.f. Ausubel, 1963), this is equally true of dialect expansion as of new language learning; it is just that the learner can rely far more on her previously acquired knowledge. Presumably, this greater reliance on already-existing knowledge is true at the competence level also.

To cite a specific example of "dialect expansion" described in the literature, Edwards (1987) examines the acquisition of patois among West-Indians living in England, and found similar phenomena (code-switching, variable competence, a definite acquisition order for the various features) among these new dialect acquirers as he would expect to find among foreign language learners. He concludes that there is no qualitative difference between learning a new language, and learning a new dialect.

Likewise, Selinker (1997) discusses the concept of "Interdialect", inspired by his

own acquisition of British English as a N.S. of American English. He compares the formation of "Interdialect" with the formation of "Interlanguage" and finds many features in common - transfer (triggered by "interlingual identifications"), individual variation in attainment, variability according to context, inappropriate over-use of target forms, and using "less than they know".

I conclude this section, then, with the thought that Portuguese and Spanish should almost certainly be regarded as different languages, and that, even if they were not, it seems to be the case that the difference between learning a new dialect and learning a new language is only a matter of degree. So, it is certainly viable to consider this study within the realms of second language acquisition.

4.2 Clitic Pronouns

4.2.1. Description

Clitic elements have been defined as those which "carecen de acento fonético propio, y por lo tanto necesitan de otros elementos tónicos para substituir gramaticamente" ("have no stress of their own, and therefore need other tonic items as grammatical alternatives") (Prado, 1977; 957) This lack of tonic accent is one defining characteristic¹; the other is that clitic elements are inseparable from the "full" verbal elements which they accompany (the verb, in the case of clitic pronouns) In fact, etymologically the word "clitic" derives from the Greek word meaning "lean on". In some cases this notion is reflected in the orthography: in Spanish, where post-verbal clitic pronouns occur in the written form, they are joined onto the verb; in Portuguese they are linked to it by a hyphen. Clitics can include such items as articles, as well as personal pronouns.

English does not possess clitic pronouns; English object pronouns can stand in isolation. For English, the rules of syntax regarding object pronouns are simple; typically they follow the main verb in the sentence, only preceding it in cases where special emphasis is to be given (as in "HIM I really hate"). Spanish and Portuguese, however do have clitic pronoun systems.

In Spanish, the clitic pronoun normally precedes the tensed verb (proclisis):

¹ So, for example, the Portuguese first person clitic *me* is pronounced /m^ə/, the /^ə/ being the pronunciation of unstressed vowels in Portuguese (not so in Spanish, which has no unstressed vowel

(1) "...los demonios me agarran los pies y me llevan alla sin que yo quiera" (Juan Valera)

the demons me grab the feet and me take there without that I want
the demons grab me by the feet and take me there against my will

It seems that in older Spanish (c.f. Green, 1988, in Harris and Vincent) post-verbal clitics (enclisis) were common, and survived into the 19th century in literary style, particularly in the preterite:

(2) "Despertóle a Ignacio al día siguiente" - (Unamuno)

(He)-woke-him to Ignacio at-the day following

He woke Ignacio the following day

Now, post-verbal position is found only with the non-finite forms of the verb, where it is attached as a suffix:

the imperative: (3) "levántate!"

raise-yourself

get up!

the infinitive: (4) "no vas a comerlo?"

not (you)-go to eat-it?

aren't you going to eat it?

and the gerund: (5) "estás molestándome"

(you)-are annoying-me

you are annoying me

Even there, in colloquial speech, it is common for clitics to occur before the main verb in the case of the gerund and the infinitive (Davies, 1995):

6) "se lo voy a decir" instead of "voy a decirselo"

to-him it (I)-go to tell

(I)-go to tell-to-him-it

I'm going to tell him

Moreover, clitics are increasingly likely to "climb" to the front of the main verb (Green, p.109); so the tendency to proclisis does seem very strong. According to Andrés Bello, considered one of the top Spanish grammarians of the nineteenth century, clitics were "una de las materias de más dificultad y complicación que ofrece la lengua"

The Portuguese system is more complex, in terms of word order. There follows a brief outline of the rules:

1. The clitic pronoun follows the verb in affirmative, declarative main clauses:

7) "prefiro-o assim" (Willis)

(I)-prefer it thus

I prefer it like this

and in polar interrogatives:

8) “viste-a?”²

(you)-saw her?

did you see her?

In this it resembles the English object pronoun and differs from Spanish.

It usually follows gerunds, ∴

9) “terminando-o”³;

finishing-it

infinitives,

(10) “desejam ver- nos” (Willis);

(they)-want to-see us

they want to see us

and imperatives

(11) “compra-os”(Willis) ;

buy them

Here it resembles both Spanish and English.

2. It comes between the auxiliary and the past participle:

(12) “Tinha- o visto” (Willis)

(He/she)-had it seen

He/she had seen it

in this it differs from both English and from Spanish.

3. It precedes the verb in negative clauses,

13) “não o dei ao professor” (Willis)

not it (I)-gave to-the teacher

I didn't give it to the teacher

open ("Wh") interrogative clauses,

14) “quem nos chamava?”;

who us was-calling?

who was calling us?

after exclamatory particles,

² According to Willis (1965), “It may precede the verb for various reasons of style, euphony and cadence” (136)

³ There are however plentiful exceptions; where the gerund is part of a periphrastic tense, the object pronoun follows the auxiliary verb; it also precedes the gerund after a negative.

- 15) "Que boa ideia me deste!",
What good idea me (you)-gave!
 What a good idea you've given me!

as well as after certain adverbials:

- 16) "já o fiz"
already it (I)-did
 I've already done it

In this it resembles Spanish and differs from English.

4. In embedded clauses, the rule is that it precedes the verb:

- 17) "ele disse que me procurava"
he said that me (he)-was-looking-for
 he said he was looking for me
- 18) "conheço o soldado que a matou" (Willis).
I-know the soldier who her (he)-killed
 I know the soldier who killed her

However, I have been told by at least one native speaker that if the verb comes more than a certain distance after the "que" (complementiser) the clitic may well follow the verb as if it were a kernel clause.

(Rules 2-4 are conflated by Parkinson (1988) (in Harris and Vincent), such that "the clitic will invariably precede the verb if any item except a lexical subject NP precedes (the verb)")

5. In the conditional and inflected future tenses, it becomes an infix between the stem and the inflectional ending:

- 19) "comprá-lo-ei amanhã".
buy it (I)-will tomorrow
 I will buy it tomorrow

Here it resembles neither English nor Spanish.

6. The clitic can, under certain circumstances where it is recoverable from context, be omitted entirely

- 20) "vi ontem na televisão"
(I) saw yesterday on the television
 I saw it on TV yesterday

The rules offered by Cuesta and Mendes da Luz (1961) correspond very closely to the above. They suggest that the rules are in fact phonologically conditioned: unstressed "e" in Portuguese is so weakened in speech as to be practically non-existent making object pronouns very difficult to pronounce in sentence- initial

position - hence rule 1. However, where the sentence initial position is occupied by a complementiser, a particle, an adverb etc., then the clitic can "lean" on this word, and "stay" in its pre-verbal position. To accept this explanation, however, implies accepting that pre-verbal position is somehow the "basic" one.

It is worth briefly discussing here the more general question of word order in the languages under consideration. Parkinson (1988) tells us that the basic, unmarked word order of Portuguese is SVO⁴; the frequent divergences which can be observed, occur for stylistic or discoursal reasons⁵. Certainly both Spanish and Portuguese are incontestably VO; although the object often may precede the verb for reasons of emphasis or information structure, it is invariably accompanied by a pronominal copy:

21) "El coche lo compré ayer"

The car it (I)-bought yesterday

I bought the CAR yesterday;

22) "A Joana a vi a semana passada"

The Joana her (I)-saw the week last

I saw JOANA last week ;

an effect achieved in English by the use of contrastive sentence stress. The Portuguese rules for clitic placement, then, diverge less from the unmarked word order of the language. They are especially interesting if we consider the question of canonical word order, an aspect of Slobin and Bever's concept of canonical forms, defined in Cook (1993) as "those which are easiest to process because they make least demands on the speaker" (94) - not necessarily the most frequent. Canonical word order is that found in active declarative affirmative sentences - in other words, for Portuguese, SVO - and it is precisely these sentence types (as well as polar questions) which do maintain canonical word order even with clitic pronouns, even though it is abandoned in other sentence-types.

It is necessary to clarify here that in Brazilian Portuguese, the situation is somewhat different. There is now a preference to place the clitic before the verb even in kernel clauses - a development which seems to mirror the similar development in

⁴ in the Greenbergian sense (i.e. involving word order in a declarative main clause)

⁵ According to Hadlich (1975) word order other than S.V.O. is a result of "thematization movement rule" which can front various elements - verbs, adverbs, objects, complements - from their normal

Spanish 100 years or so previously. The use of the European Portuguese rules in this area (both the post-verbal position and the infix position in the future and conditional tenses) sound "archaic" and "pedantic" to speakers of Brazilian Portuguese, according to one of my Brazilian informants. A textbook of Brazilian Portuguese categorises the post-clitic structure as "formal", and indeed as only permissible when the subject pronoun is omitted, leaving the verb in sentence-initial position. (Ellison, 1971; p.105) Moreover, there is a tendency to move away from the use of clitics altogether, in colloquial speech, towards the non-clitic alternatives: the full object pronouns, invariably placed after the verb and the required preposition⁶. This would appear to be part of a general tendency in Brazilian Portuguese towards greater syntactic transparency, expressed in rejection of forms (accepted and even preferred by speakers of European Portuguese) which violate canonical SVO word order. However, Cuesta and Mendes da Luz (1961) maintain that this construction finds echoes in medieval Portuguese, while admitting that then it would only be used for emphasis - being in other words a discourse feature rather than a purely syntactic one.

Another feature of Brazilian Portuguese is the avoidance of subject-verb inversion, supposedly an option characterising pro-drop languages. (see 2.4.2.3) It is interesting that speakers of Brazilian Portuguese appear to prefer the presence of subject pronouns where European Portuguese speakers would prefer the null subject; perhaps Brazilian Portuguese is in the process of shifting from being a pro-drop to a non-pro-drop language. Ellison's textbook gives *Eu a conheço* (i.e. preclisis) as the standard form and *Eu conheço ela* (i.e. non-clitic pronoun) ("I know her") as an informal variant, with subject pronoun present in both cases.

4.2.2. Markedness

The concept of markedness is discussed in a general way in Section 2.4.2.2; in this chapter we consider the specific structures under study in the light of markedness considerations.

position.

⁶ However, three Edinburgh-based Brazilian informants, on the basis of a "mini judgement task" accepted *conheço-a* as well as *eu a conheço* as the "best" alternatives. They rejected the final full pronoun as only used by "uneducated" or "educated careless" people - suggesting that they were

Clitic pronouns have long been a source of special interest to generativists, due to their occupying a "shadowy area" between syntax and morphology (Borer, 1986). Within the Chomskyan framework (c.f. Jaeggli 1982) there is disagreement about which is the "unmarked" position for clitic pronouns, and as to whether preverbal clitics are generated in pre-verbal position or whether they are a result of movement from a post-verbal position. In favour of the former, Strozer proposes the hypothesis that:

“clitics are generated in pre-verbal position...together with full pronominal phrases at the right of the verb, these being later deleted, under certain conditions, by a Pronoun Deletion Rule”

as support, he cites evidence of an earlier SOV order in Romance languages, vestigial from Latin.

There are, however, more arguments in favour of the latter view. According to some scholars, violations of canonical word order in a given language are generally marked. As Zobl points out (1980), although not himself using the term "marked", pre-verbal clitics violate canonical SVO word order for Romance languages; therefore we could regard the pre-verbal position as marked. Diachronically there seems to have been movement away from post-verbal towards pre-verbal clitics: previously post-verbal clitics were accepted in Spanish, at least in declarative affirmative past tense sentences. If we consider the question in the light of principles and parameters of UG, Portuguese and Spanish are both Head-initial languages, in which the verb should precede the complement. The pre-verbal position is also "marked" according to the "learnability" criterion associated with Universal Grammar (c.f. White, 1987); the evidence suggests that a child learning French as her first language does not use pre-verbal clitics in the early stages of development (c.f. Gass 1984). Clark (1986) also cites research on children acquiring French as L1 which suggests that clitics are late acquired. Younger children avoid direct object clitics, preferring to repeat the full object NP⁷. They also occasionally use the tonic pronoun form ("lui", "moi") after the verb, instead of the pre-verbal clitic pronoun; and again sometimes "à elle", which interestingly is mirrored in the tendency in

taking a highly prescriptive approach to the issue.

⁷ Example given: - *Qu'est-ce qu'il a fait de ses chaussures?* - *Il a enlevé ses chaussures*. The older children in the same study replied *Il les a enlevées*

Brazilian Portuguese described in the previous section, as well as in adult colloquial French⁸. There does not appear to be any evidence on the acquisition of Spanish or Portuguese in this respect.

We could also mention the relative markedness of the various clause types in which clitics are found. According to the principle of "semantic complexity", and that of "more morphological material", (Comrie, 1976; Rutherford, 1982, uses similar criteria), negative clauses and open ("Wh") questions would be more marked than affirmative declarative clauses; and, at least according to the "semantic complexity" criterion, subordinate clauses would be more marked than the first three, because of the greater propositional content of the complex sentence. To sum up, for the purposes of this study, I will take the pre-verbal position to be marked, and post-verbal to be unmarked, because:

- pre-verbal position represents a violation of canonical word order,
- historically, post-verbal clitics were acceptable even in Spanish, in some contexts,
- Portuguese is a head-initial language,
- pre-verbal clitics are late-acquired in the acquisition of L1 French (a related language).

There are one or two structures where the matter is slightly less clear-cut: The infinitive (post- verbal), can be regarded as "unmarked" for position but marked for clause-type, as a clause containing an infinitive would carry more complex propositional meaning (i.e. be more semantically marked) than a clause containing only a main verb. The perfect tense is marked for position, as the clitic comes before the main verb; and the post-adverbial-phrase context is unmarked for clause-type if it is affirmative declarative, but marked for position - doubly marked, in fact, as not only does it violate canonical Romance language SVO word order, but also it goes against the Portuguese-specific rule that clitics do follow the verb in affirmative declarative clauses.

4.2.3 Transferability

Here I will briefly consider the question of whether transfer can be expected to

⁸ Examples given: - *on avait lui ; je dis á elle*

occur in the area of clitic pronouns; and if so, are these learners more likely to transfer from Spanish than from English. Regarding the first question, clitic pronouns are generally considered to be bound morphemes, which are not usually transferable; although there is not unanimity here, c.f. Adiv (1984) (see section 2.4) On the other hand, they are not stable; they show a tendency towards diachronic change, which would make them more prone to transfer, according to Zobl (1980).

Gundel and Tarone (1993), working within Schachter's (1983) Hypothesis-testing Model, present interesting findings involving Spanish-speaking learners of English and English-speaking learners of French. Both sets of learners appeared to go through a stage of omission of object pronouns, inconsistent with both their L1 and their L2. She admits these errors could be written off as developmental, but prefers an explanation that well illustrates a more complex and subtle approach to C.L.I. That is, these learners begin with the hypothesis that the L2 will have object pronouns in the same position as in the L1. When this is disconfirmed, they progress to a second hypothesis of no object pronouns, before finally formulating the third correct hypothesis (i.e. object pronouns occur but in a different position from the L1). It would be interesting to speculate as to whether any or most of our learners of Portuguese go directly to the third hypothesis, on the basis of their experience with Spanish; which would lead to partial error and partial accuracy.

If we next look at the literature on the acquisition of clitic placement in Spanish as L2, there is some evidence of transfer. Andersen (1990) found production of post-verbal clitics in Spanish in the initial stages, which he offers as evidence for his "One to One Principle", which states that "an intended underlying meaning is expressed with one clear invariant surface form or construction" (51); learners are maintaining the canonical SVO order of Spanish, which **is** correct for full NP objects. This also conforms to Clahsen's (1984) "canonical word order strategy", paraphrased in Cook (1993) as : "re-ordering of linguistic material should be avoided; stick to SVO and all will be well" (99). Van Patten (1990) similarly found a strong tendency to preserve SVO order, both through erroneous post-verbal placement and through avoidance, in the form of repetition of the full NP, or use of the full (i.e. non-clitic) pronoun (correctly placed post-verbally). These findings are also consistent with Andersen's (op cit) "Transfer to Somewhere principle" (see Section 2.4.2.5), according to which

a prerequisite for transfer is the potential for misgeneralisation in the L2 input, in this case the post-verbal placement of full NPs being used as a model for clitic placement. Of course, neither Andersen's nor Van Patten's research **necessarily** provides evidence for transfer, as the data **could** be explained entirely in terms of intra-lingual influence. However, the idea of an interaction between L1 and L2 influence, with L1 knowledge acting on the data to lead learners to hypothesise that SVO order is inviolable, is more intuitively appealing.⁹

I was able to find no research about acquisition of clitic placement in Portuguese, whether as L2 or as L3. What might we expect regarding L3 Portuguese acquisition? If unmarked forms are more likely to be transferred than marked forms, we would expect the marked, pre-verbal position, characteristic of Spanish, to be less transferable than the un-marked, canonical post-verbal position of object pronouns in English. Abstract markedness criteria would be reinforced by the input, in which they would find (unlike in Spanish) many sentences with post-verbal clitics, as well as (like Spanish) full noun objects in post-verbal position. In other words, all else being equal, we would have reason to expect English- and Spanish- speaking learners of Portuguese to transfer from English rather than Spanish in this instance.

4.3 Verbs of Existence: "Ser and Estar"

4.3.1. Description

The English verb "be" has three equivalents in Spanish and Portuguese: *ser* and *estar*, which are common to both languages, and *ficar* (Portuguese) and *quedar* (Spanish). All three verbs, in both languages, can correspond to both the copula and the locative uses of English "be". *Ser* and *estar* will be considered in more detail, as they are the focus of the study.

Regarding the differences between the uses of *ser* and of *estar* in Portuguese, Parkinson (1988) describes the distinction as aspectual; he calls *estar* progressive and *ser* non-progressive, and links this to the permanency of situations described using

⁹ Interestingly, both researchers found 3rd person clitics to be later acquired in terms of correct placement; Andersen attributes this to formal complexity, as there are three different forms of the clitic to acquire in the 3rd person (direct object, indirect object and reflexive) as against one invariant form in the 1st and 2nd. VanPatten, on the other hand suggests that this could be due to the very different nature of the pronoun types in terms of discourse: 1st and 2nd person being deictic, 3rd person depending on previous text, and also being avoidable through the use of full NPs. (There is of

ser compared to the temporary/ non-inherent nature of situations described using *estar*. This distinction holds in Portuguese whether the verb is being used to describe a state or characteristic (+ Adj. Phrase), or a location (+ Prep Phrase).¹⁰

In Spanish, the rule is slightly different. The same rule applies as in Portuguese for states or conditions (*estar*) vs characteristics (*ser*) (c.f. Serrano and Serrano, 1992, reviewed by Barnwell, 1995, who regard the two verbs as the "most fundamental building blocks of the Spanish language", and "revelatory of how the Spanish mind works") although Green (1988) does warn, without giving examples, that there is a slight risk of oversimplification in this definition. However, for describing location, even if permanent, *estar* is always used. In fact, Clements (1988) regards "location" as the "core" meaning of *estar* in Spanish, supporting this with the etymological reminder that the original Latin meaning of the verb "stare" (from which "estar" derives) meant (1) "find oneself in space in a vertical position" and (2) "'find oneself immobilised, remain in a given state". Portuguese seems in this respect to have been more innovative than Spanish, preferring to leave behind the core meaning in favour of greater semantic systematicity. It should, however, be mentioned here that at least one grammarian of Brazilian Portuguese (Ellison, 1971) does maintain that "estar" may be used for a fixed location to convey "preciseness of reference"; the example he gives is "Brasilia esta bem no centro do pais." Although I have not seen any comparable example in European Portuguese grammars, this does provide an interesting hint that this Portuguese rule may not be as stable as hitherto assumed.

course no reason why both causes should not be reinforcing each other to delay acquisition)

¹⁰ Although this description is perhaps in the end over-simplistic, viz. Schmidt's (1986) account of his learning of this structure: "...the contrast between SER and ESTAR....does not seem that hard, although there are some arbitrary aspects of the distinction. ...if it's 12:15, which seems pretty temporary to me, it has to be SER. My status as a student in this class is certainly temporary, but it has to be SER. (The teacher) explained that this moment in time will be forever frozen with the label 12:15 and the relationship between student and teacher is enduring. Nice rationalisation, but I'm sure I'll do better just paying attention to what people say in specific situations" He also could not reconcile using *ser* in the past, as if something was past then it was by definition temporary - therefore he often over-used *estar* in the past.

Portuguese	Spanish	English
23) "aquelas casas são grandes"	"aquellas casas son grandes"	those houses are big
24) "hoje estou um pouco triste"	"hoy estoy un poco triste"	today I'm a little sad
25) "estamos em Londres agora"	"estamos en Londres ahora"	we're in London now
26) "onde é a biblioteca?"	"¿dónde está la biblioteca?"	where is the library?

The verbs *ficar* (Portuguese) and *quedar* (Spanish) are semantic equivalents.

They both have several uses:

- to describe permanent location:

27) "Edimburgo fica na Escócia"

Edinburgh is in Scotland;

- an inchoative use (+ Adj. Phrase), equivalent to English "get":

28) "ficou zangado" -

(he/she) got angry;

- an intransitive use, equivalent to English "stay"

29) "fiquei em casa"

(I)-stayed in house

I stayed at home.

As these two verbs are more or less identical in usage across the two languages, and thus there is no potential for L2-L3 transfer, this study will be limited to the "ser"/"estar" distinction.

4.3.2. Markedness

There is to my knowledge no literature as to the relative markedness of the two verbs *ser* and *estar*. It would perhaps be logical to regard the existence of the **distinction** between the two existential verbs as marked viv-a-vis the existence of a single verb as in English or French? There are some arguments that could be presented in favour of *ser* as the unmarked option in the pair; one is derivational: it is the verb which has clearly descended from the single Latin existential verb *essere*, while *estar*, deriving from *stare* ("stand"), could be seen as less semantically stable. This would be consistent with Zobl's (1980) "stability" criterion for markedness. Another argument is that its meaning - permanent, inherent characteristic as opposed to ephemeral

mood or temporary location - could be perceived as more of a **core** meaning. However these are only tentative suggestions of my own. If frequency within a language can be regarded as a criterion for markedness, this would also favour *ser* as the unmarked verb – at least in Spanish, where it is three times more common in the input (VanPatten, 1996)

4.3.3. Acquisition

In his research into the acquisition of *ser/estar* in L2 Spanish, VanPatten (1985) found that, after an initial stage of omission of copulas, *ser* was acquired first - which he attributes to frequency in the input - and then over-generalised to all contexts where a copula was required. He suggests (a suggestion with which I concur) that this over-generalisation could be interpreted as a transfer effect; another exemplification of Andersen's "Transfer to Somewhere Principle" : English is a language with one copula verb, so native English speakers do not expect to find more than one in the foreign language, and acquire the one which is more salient. Locative *estar* was acquired before condition *estar*; perhaps because location is more clearly a different concept from the core meaning of *ser*?

Regarding Portuguese, Schmidt gives a personal account of his acquisition of *ser* and *estar* in Schmidt and Frota (1986). It was a difficult structure for him, achieving only 44% accuracy on the first tape he recorded (after 7 weeks in Brazil) and 54% on the second (after 22 weeks in the country); this is compared with much higher figures for other features of the verb phrase. When his errors were broken down into "omission" and "incorrect choice", there was a much higher level of omissions for *ser* than for *estar* on the earlier tape, but an approximately equal level on the second. Regarding choice, there were substantially more errors in contexts requiring *estar* than in contexts requiring *ser*, suggesting avoidance of *estar*. The pattern was in fact for *ser* to substitute for *estar* in the present, and for *estar* instead of *ser* in the past¹¹. Verb choice improved over time; the omission problem - which he ascribes to transfer from his Arabic L2 - did not. Schmidt's experiences are relevant to a discussion of L2-L3 transfer in general, even if they do not have a direct bearing on

¹¹ His own explanation for the latter type of error is that it seemed to him counter-intuitive to regard a past, finished situation as permanent.

my specific area of concern, given that Schmidt's L2 is not Spanish.

Cross-linguistic comparison suggests that the only opportunity for negative transfer to take place between Spanish and Portuguese is in the notion of location: we might expect Spanish-speaking learners of Portuguese to attempt to use "*estar*" on all occasions where a locative is required. On the other hand, it is also important to point out here that there is great potential for positive transfer, in the sense that such learners come to Portuguese with the awareness that it **is** possible in a language for there to be two copula verbs equivalent to English "to be", and for the semantic distinction between "characteristic" and "state" or "condition" to be lexicalised. Of course, there are other languages having little in common with Spanish, such as Gaelic, which also have two copulas, even if the way they divide the semantic space differs. It would be interesting to see if an L2 speaker of Gaelic learning Portuguese would have the same advantage, or if the advantage only exists where the L2 and L3 are closely related.

5. MOTIVATIONAL AND ATTITUDINAL FACTORS: THE MISSING DIMENSION?

"It is clear enough that free curiosity has a more positive effect on learning than necessity and fear" (St. Augustine)

As seen in Chapter 3, there is disagreement as to the amount and nature of C.L.I between two foreign languages. Factors contributing to differing findings include the nature of the languages involved, and the language areas involved. However, I am convinced that there are also individual (i.e. between-learner) differences determining whether it is L1 or L2 which influences L3¹. I therefore decided to approach the literature exploring the effect of attitudes and motivation on the learning of a foreign language.

5.1 The Gardner and Lambert Studies

The most comprehensive research in this area must be that of Gardner and Lambert (Gardner and Lambert, 1972; Gardner, 1985). They examined learners in various learning situations, looking at several factors which might influence language proficiency, including motivation/ orientation (both "instrumental" and "integrative"), attitudes to the target culture, "anomie" and "ethnocentrism". Basically, they were proposing a "package", a "psychological theory of second language learning" which states that:

"an individual successfully acquiring a second language gradually adopts various features of behaviour which characterise another linguistic, and, as is often the case, another cultural group. The learner's ethnocentric disposition and his attitude toward the other group are believed to influence his success in learning the new language. His motivation to acquire the language is considered to be determined by his attitudes toward the other group and by his orientation toward learning a second language. (Gardner and Lambert, *op cit.*, 358)

They posit various possible orientations which might lead someone to be prone to learn another language: she may see it as a means of being accepted in another group,

because of dissatisfaction with her own group; or she may be very interested in both her own culture, and in the target culture. There have been numerous studies since Gardner and Lambert probing this inter-relationship; many of them support Gardner and Lambert's original findings, but many others question them or contradict them. This is still an area in which there are no definite answers.

5.2 Motivation/ Orientation

Gardner and Lambert make a distinction between "orientation" and "motivation", which some other researchers (c.f. Dunkel, 1948) distinguish as "type" and "extent" of motivation. Gardner (1985) characterises motivation as a:

"combination of effort, plus desire to achieve the goal of learning the language, plus favourable attitudes towards learning the language"
(p.10)

He emphasises that effort alone is not sufficient.

Orientation, on the other hand, refers to an individual learner's ultimate goal in learning the target language (sometimes referred to as type of motivation.) Goals are classified into two types: **integrative**: (stemming from the desire to integrate with the target culture - "interest in learning a second language in order to become psychologically closer to the other community", Gardner, *op cit.*, p. 76; "a sincere and personal interest in the people and culture represented by the other language group", Lambert, 1974) and **instrumental**: (learning the language for some extrinsic/ utilitarian purpose, such as social or economic advancement)². Whichever the type of goal, it is not the orientation *per se* that leads to learning, but rather the reinforcing effect that it has on strength of motivation.

There is a problem here of ambiguity, as has been pointed out by Oller, et al (1977); often the category under which a given goal is included depends on the interpretation of the researcher. For example, "travel abroad" has been counted as integrative by some researchers, and as instrumental by others. Gardner also points

¹ Moreover, results from the exploratory study described in Chapter 6 point towards the possibility of their being two types of learner: those who choose to transfer from their L1 and those who choose to transfer from their L2.

² Gardner and MacIntyre (1991) later also refer to these as "individual based motivation" and "situationally based motivation" respectively.

out another danger here, that of counting reasons such as "because I was required to"; he maintains that as this cannot be described as a goal, it should be regarded as a lack rather than a type of orientation. There is also the question of just how separate they actually are - it seems the two types of orientation have been seen to positively correlate with each other (Gardner and MacIntyre, 1991) - in fact the one may help to bring about the other.

Gardner and Lambert found that both types of orientation (instrumental and integrative) could aid proficiency, depending on the learning situation. In a bilingual situation, such as that of Quebec, integrative motivation seemed to correlate with higher proficiency. There have also been studies linking integrative motivation with particular kinds of classroom behaviour; Gliksmann (1976) saw that integratively motivated students volunteered more, gave more correct answers, and received more positive reinforcement from the teacher. Gardner and MacIntyre (1991) also maintain that they participate more in class, as well as seeking out opportunities to visit the target culture and interact with native speakers of the language concerned.

In a foreign language situation (English in the Philippines), however, high instrumental motivation seemed to be a very influential factor (Gardner and Lambert, 1972). Lukmani (1972) had similar findings in Bombay, where the more successful students professed to be learning English to improve their standard of living, and definitely not to identify with the English-language group for its own sake.

Gardner and MacIntyre (1991) set out to look at the effect of both types of orientation in the one study, involving the learning of French words. They provided a rather crude, but very concrete and objectively measurable form of instrumental motivation for their experimental group: a reward of \$10 for successful learning.³ In addition, subjects were given tests of attitudes to the French language, target culture, and language learning, to measure integrativeness. They found significant positive effects for both types of orientation, in terms of successful outcomes. They also measured time spent learning the word pairs (English and French), but this time the subjects who had been offered the monetary incentive spent significantly longer than the others; there was no effect for integrative motivation. Gardner and MacIntyre

(1991) tentatively attribute the latter to the artificial nature of the task³. The most interesting difference between the motivation types was that it was only in the **last** of the six trials that there was no difference between the experimental (reward) group and the control (no reward) group in terms of study time. This trial took place after it had been decided who was going to receive the reward and who not, so the incentive was no longer there; this suggests that instrumental motivation may be less durable than integrative, and may tend to evaporate once the reward (or university degree, or job, or salary rise...) is attained.

However, a murmur of dissent about the effect of orientation needs to be mentioned here, as not all studies have found a positive relationship between orientation and proficiency; for example, Svanes (1987) found a negative relationship between Americans' integrative motivation and their proficiency in Norwegian. He maintains that cultural distance (defined as an interaction between familiarity with Western culture, and proficiency in a language similar to Norwegian, e.g. English) rather than orientation may prove to be the decisive factor. However, his research is suspect in several ways.

Gardner (1985) makes a methodological point which is relevant here: it appears that factor analytical studies have tended to support the importance of integrative motivation in S.L.A., while multiple regression studies have tended to cast doubt on it. Thus, at first sight, part of the contradictory nature of the evidence may be explicable in terms of the different statistical tests used. However, Gardner goes on to put forward other possible reasons for the different results: very dissimilar definitions of motivation and orientation; use of scores based on single items rather than scales; groups which were not homogeneous. In other words, he suggests that the contradictory results may in fact arise from differences in the whole research design of the studies, rather than simply differences between the statistical techniques used.

To conclude this section, it should be noted that although these are the two

³ They attribute the original idea to Dunkel (1948)

⁴ However, when it came to "viewing time", i.e. time spent looking at the English word and thinking before giving the response in French, there was a main effect for both groups; the group offered the reward spent longer than the control group, and also the more integratively motivated students spent longer than the non-integratively motivated ones.

types of motivation/orientation most commonly investigated and discussed in the literature, they are not the only types. Achievement can itself create what Hermann (1980) terms **resultative** motivation; and **intrinsic** interest (in the language for its own sake) is a form of motivation in itself, whose effects, however, have not been widely investigated. This may be akin to Krashen's (1981) (cited in Gardner 1985) "analytic orientation", which involves certain personality traits like "innovation", "breadth of interest" and "complexity"⁵. Skehan (1989) pleads for a wider variety of research in the area, to include longitudinal and ethnomethodological studies, in order to "monitor changes in motivation levels over time which are linked to external events and influences"(138); this should help to resolve the chicken-and-egg (motivation-achievement) question as well as generally offering a more subtle picture than can be provided by test data alone.

5.3 Attitudes to Target Culture

Attitudes have been defined (Nunnally, 1972) as "predispositions to react negatively or positively in some degree towards a class of objects, ideas, institutions or people" According to Ake (1982), social scientists disagree about the components of attitude; Gardner (1985) breaks it down into three main components: cognitive (referring to belief structure), affective (referring to emotional reactions), and conative (referring to behaviour towards the object of the attitude). What is generally accepted is that attitudes are learnt from experience, and that they are relatively enduring. It is believed that they are developed in childhood, influenced by both parents' and peers' attitudes and by encounters with "different" people; thus when students reach the language class, they already may well have attitudes towards the target culture; and because of such factors as unease in the face of the unknown, these attitudes may not be positive at the beginning.

For research purposes, Gardner (op cit.) defines attitude as "an evaluative reaction to some referent or attitude object, inferred on the basis of the individual's beliefs or opinions about the referent" (p.9) The attitudes of language learners are

⁵ Certainly, in my own experience I have met learners whose motivation was of the latter type, who approached the language through intellectual interest rather than either integrative or instrumental

investigated using Likert-style questionnaires and Semantic Differential scales (Osgood, 1957) (see 7.4), both of which instruments are widely-used in attitude research in the social sciences in general, not only in linguistics. The results are compared with their language proficiency, if it is the effect of attitudes on language learning which is under scrutiny; or, if it is the opposite - the effect of language learning on attitude - which is the focus of the study, the students are tested for attitude twice - before and after their course

The research of Gardner and Lambert generally, although not invariably, points to a significant relationship between positive attitude towards the second language culture and proficiency in the second language.

However, there is also a sizeable body of contradictory evidence. Strong (1984) cites evidence showing little or no relation between attitudes and proficiency and maintains that:

"In general, the intuitive appeal of the notion of a relationship between attitudes and second language acquisition is more convincing than the research evidence itself"(p.3)

Oller et al (1977), Teitelbaum et al (1975) and Svanes (1988) found that the most positive attitudes towards the target culture did not correlate with the highest test scores. Oller found an inverse relation between positive rating of Americans and good performance on an English cloze, among Mexican Americans from a low socio-economic background in the Southwest U.S.A. In general, he found orientation to be instrumental, even actively anti-integrative; moreover, as these learners progressed in their English, their resentment grew stronger rather than lessening, perhaps as they came to identify with the colonised minority⁶. Genesee and Hamayan (1980) were surprised to find a positive correlation between negative attitudes to French Canadians and proficiency at listening comprehension among young children in immersion programme French. Similarly, Teitelbaum et al (*op cit.*) found among learners of Spanish in the U.S. that high scores on the cloze correlated negatively with a positive orientation towards the local "chicano" community.

motivation, and who made excellent progress in the language.

⁶ Later (Oller and Perkins, 1978) it was even suggested that some learners' negative attitudes might lead them to excel at the L2 because of a desire to manipulate the speakers of that language; this is termed "Machiavellian motivation"

Svanes (1988), on the basis of his research into the learning of Norwegian by foreign University students, suggests that perhaps a healthily critical attitude might in fact be a more reliable predictor of language proficiency - however, there were several serious flaws in his research, which I will outline here. Firstly, the grounds on which the students were divided into groups seemed at best vague, and at worst out of tune with historical reality. He gives linguistic grounds for the division; the first group representing SVO languages, the third group SOV, and the second "was on the borderline between VO languages...and OV languages". What he actually means by this "borderline" is simply that half of the L1s represented in the group are VO and half are OV; so his terminology is scarcely scientific. Moreover he mentions that the first group consisted of European and American students speaking "two or more languages which are closely related" - yet two of this group were Finns, and as is well known, Finnish is not an Indo-European language, and, as such, these students' L1 would be less related to the other languages in the group than would many of the L1s of the third group, given that the latter included Pakistanis, Indians, and Sri Lankans, some at least of whom would have spoken an Indo- European L1. There appears to have been a certain lack of rigour in the researcher's assignment to groups. However, I suspect that this occurred because he was perhaps placing more emphasis on the cultural criteria than on the linguistic, which brings me to my second reservation. He divides the non-European students into two groups: "intermediate" and "far". The former consist of Middle Eastern and Africans, the latter of Asians. The "intermediate" group "came from countries that have been heavily colonised" and that have "English and French as an official language". He would seem to forget that all the Asian countries represented (Bangladesh, India, Pakistan, Sri Lanka, Vietnam) suffered heavy colonisation also, and that at least in India, English is still the language of administration. Moreover, he claims that the "far" group "were probably less exposed to Western language and culture than the in-between group as they had strong national languages and established cultures" (360) This use of "probably" reveals that the claim is made on a basis of pure conjecture; and more seriously, the implication that the Middle East and Africa have no established culture says more about the researcher's own racist biases than about reality.

My next misgiving is about the nature of the attitude test used. While I am aware it is widely used in this type of experiment, I see inherent problems with its use with subjects who are not native speakers of the language in which the test is administered. Words pertaining to personality characteristics are notoriously open to different interpretations, even among speakers of the same language; connotations vary from one idiolect to another. To give one example, "conservative" is listed in the scale, apparently intended as a positively- connotated feature; yet for many native speakers of English (at least) this would be a negative attribute. Again, many of the terms are very vague and open. "Democratic" could refer to beliefs, or to actions. "Happy" could mean "always laughing" or "quietly content" or maybe even "fortunate". My point is that such imprecise terms may not be a useful basis for collecting data for a statistical analysis, particularly, when it is being answered by non-native speakers of very varied nationalities, as we cannot tell how they are translating these terms into their own conceptual system. If there is already room for wide interpretation among speakers of one language, how much more so when they are being translated? We must ask how reliable such a scale can be.

Svanes quotes Schumann as saying that being "full of admiration for the host country" may lead to feelings of inferiority, which might not be conducive to language learning; he interprets his results in this light, pointing to a connection between the Asians' higher rating of the Norwegians (in comparison with the other subjects), and their lower scores on the language proficiency tests. However, to suggest that this high evaluation of the Norwegians implies some form of inferiority complex, is to ignore some of the data. For not only do the Asians rate themselves highly also, they rate themselves more highly than the Norwegians on some features, including "competent", "intellectual" and "studious" - features which would presumably be considered of some importance by university students.

In his discussion, Svanes claims that "in Western culture the development of the ability to evaluate and criticise is part of our education", a sweeping generalisation. He goes on to inform us that "the Asian students had attended schools that are much more authoritarian than Western schools"; but does not tell us whether this assertion is based on interviews with the subjects, or pure conjecture again; nor

does he specify which kind of Western schools? Many British independent schools are highly authoritarian, for example.

Finally, there seems to be a passing suggestion in the discussion that ability to be critical and "the academic skills of language learning" are linked with intelligence. Is there an implication, then, that Asians are simply less intelligent than Africans and Middle Easterners, who are in turn less intelligent than Europeans? Svanes really needs to be wary of making claims that could be interpreted as racist.

The purpose of this digression has been to emphasise how carefully we should look at the design of an experiment before unquestioningly accepting the conclusions derived from it.

5.4. Anomie

The construct of *anomie* was first defined by Durkheim (1897), and was used to refer to a sense of alienation from one's own culture, experienced by people living in anonymous, urban communities. It was taken up and adapted by Lambert (1963) who defined it, for the specific context of language learning, as being between two cultures, of belonging to neither completely; the feeling of:

"chagrin or regret as (the student) loses ties in one group, mixed with the fearful anticipation of entering a relatively new group. The concept of "anomie"...refers to the feelings of social uncertainty which sometimes characterise not only the bilingual but also the serious student of a second language"

Lambert found that students who showed evidence of *anomie* tended to be successful foreign language learners, compared to the more psychologically detached ones; provided they were able to handle and resolve the conflicts of *anomie* and "transform it from a conflictual stumbling block into a positive driving force" (64)

Jakobovits (1970), in discussing the question of what he terms "interculture", describes the estrangement of returned Peace Corps volunteers from their own (American) culture. He termed their ability to draw on two cultures "bilingual schizophrenia", and noted that it coincided with increased foreign language proficiency and changes in attitude.

Spolsky (1969) also found, in learners of English, a highly significant

correlation between proficiency and a greater desire to be like an English-speaker than like a speaker of their own native language.

5.5 Ethnocentrism

This is the belief that one's own culture is superior, that one's own group is the centre of the world and that other groups are scaled in reference to it (Sumner, 1934). Gardner and Lambert found this trait to be disadvantageous to language learning, in studies both of American school children learning French, and of Filipino children learning English.

5.6 Directionality of Relationship

Many of these studies have been carried out using multiple regression analysis, which is basically correlation between many variables. And, just as with correlation, there is the risk of inferring a relationship where none exists, or of misinterpreting the directionality of the relationship (normally in the direction in which the researcher would like to see the relationship to go.) In the case of attitude/ motivation research, there is the risk of interpreting a high correlation as proving the equation:

positive attitude/strong motivation > high proficiency

In fact, it is equally possible that the reverse may pertain; it may be that success at language learning produces the positive attitudes to the culture, or the highly-motivated student⁷.

Some studies, eg Ake (1982) have set out to study this possibility. Ake wished to see whether attitudes to the target culture and ethnocentricity are affected by the learning of a foreign language - specifically Spanish; she was attempting to see whether it was possible to substantiate the claims of many foreign language teaching specialists (Jakobson, 1970; Valette and Disick, 1972; Lado, 1967) that language learning reduced ethnocentrism and led to greater tolerance and improved attitudes to minority groups. She found "anomie" to increase, but no decline in ethnocentrism; but adds the rider that these particular students evinced a low level of ethnocentrism

⁷ conversely, negative attitudes may be a consequence of poor performance – as a means of justifying it a posteriori, as Gardner and Lambert suggest, or simply as a result of demotivation.

to begin with. She found most students' attitudes to most Spanish-speaking groups not to change significantly with Spanish instruction; however, one group's attitudes to Mexicans improved significantly and one's worsened significantly; the latter two were groups of high school students, and she concludes that perhaps this was due to different teaching styles, and suggests that these younger students are perhaps more flexible, and open to changing their attitudes.

Strong (1984) tested the integrative motivation of Spanish-speaking kindergarten children, using sociometric methods (looking at allegiances), and found that integrative motivation seemed to come after fluency; however, I am a little dubious about the method, given that the Spanish –speaking children could presumably not communicate with the Anglo children until they had achieved some measure of fluency; therefore their increased choice of Anglo-Saxon playmates would not necessarily constitute a switch in cultural allegiances. Indeed it may simply reflect a greater willingness on the part of Anglo children to play with their Hispanic classmates once they could talk to them?

5.7 Acculturation Studies

Brown (1980), looking at second language learners living in the target culture, claimed that it is necessary for learners to go through all the stages of acculturation (including "anomie") while attempting to master the language; he maintains that there is a "critical period" in psychological terms as well as physical terms, and that a certain stage of acculturation represents the optimum level.

In his well-known study of the English of Alberto, a 33-year-old working class Costa Rican immigrant in America (see Section 2.6), Schumann puts forward his "pidginization hypothesis". Alberto's speech scarcely developed over the course of ten months, and it shared many of the characteristics of pidgins. He spoke a simplified form of the language with, for example, very little interrogative inversion, and without regular past tense endings. Schumann's idea is that pidginization is a feature of all interlanguages, but that it will persist (in the case of immigrants) in unfavourable circumstances: if there is a high degree of social and psychological distance. Social distance refers to the distance between the learner's language

community and the target community, and comprises features like the power relationship between the two cultures (whether it is equal or one of dominance/subordination); whether they exhibit "enclosure" (that is having their own institutions, like schools and churches); whether the immigrants want to assimilate (to the target culture), acculturate, or preserve their own culture; and length of stay. Psychological distance has to do with the individual, and includes factors like "language shock", culture shock, motivation and empathy. Alberto's situation was one of some social distance, and although he professed positive attitudes when answering a questionnaire, in practice he did not meet many native speakers, nor generally integrate in the US community. However, I have a doubt about Alberto. Schumann maintains that he was of normal intelligence, with no "gross cognitive deficits"; yet in the same paragraph (p. 68) we are told that Alberto, like the two pre-teenage boys in the study, was just at the onset of the Piagetian stage of formal operations. Given that this stage is normally reached in puberty, and that Alberto was 33 years old - and, as Schumann admits, unlikely to develop further, - surely we cannot consider him to be totally "normal" in terms of cognitive development. This slight deficit could well be a contributing factor in his lack of L2 development; it would be interesting to know how he performed in Spanish, to determine whether his L1 was in fact fully acquired. I am not claiming that this necessarily "disproves" Schumann's theory, however; Alberto's lack of L2 development represents an extreme case and it seems quite plausible that the **interaction** of cognitive and affective factors could account for it.

These studies may seem unconnected to the learners I am concerned with, as they are in a foreign language learning situation - they are not immigrants. However, they do spend the third year of their degree in residence between a Spanish -speaking and a Portuguese-speaking country, so the degree of social and psychological distance they experienced could have had a bearing on how much language they acquired during their stay. Thus these issues may well have some relevance in the case of the advanced

learners⁸.

5.8 The Connection with my Study

It is still difficult to reach any firm conclusions in this area due to the contradictory nature of many of the findings, which appear to vary greatly depending on the learning situations in which the research is conducted⁹. Regarding orientation, the relative importance of integrative or instrumental motivation in terms of effect on proficiency, may be related to the learning context - whether the language is being learnt as a second language in a bilingual situation, or as a foreign language. The effect of attitudes to the target culture appears to be particularly contentious; it would perhaps be worth examining the nature of the proficiency tests used in some of the studies to check that they are actually valid tests of acquisition. There seems to be greater consensus about the positive effect of *anomie* on language learning, and its corollary, the negative effect of ethnocentrism.

To my knowledge, the existing studies relate these individual differences to overall language proficiency; where this is broken down, it is broken down into the various skills; but I know of no study which relates these factors specifically to cross-linguistic influence. This endeavour is clearly not the same as relating attitudes or orientation to across-the-board proficiency, nor to proficiency in a given skill. This is well illustrated by the hypothesis that positive attitudes to foreign culture could actually lead to negative as well as positive transfer from one foreign language to another. In other words, the learner with a "positive attitude" or integrative orientation may make L2-based mistakes which might be avoided by a more "ethnocentric" learner, who might prefer to have recourse to the L1. At the same time, the same learner may acquire more quickly those forms which resemble the L2. I am hopeful, therefore, that my study might be able to make a contribution to the area of social psychology and S.L.A. by relating attitude and motivation to a more specific aspect of second language learning.

⁸ Many British students abroad tend to congregate in little ex-patriate groups, but by no means all; so some have a far more "foreign" experience than others.

⁹ To quote Skehan (1989), "At present, motivation theories seem rather fragile, and, like some wines, do not travel well" (70)

6. THE EXPLORATORY STUDY

I will now describe an exploratory study designed to explore transfer between two related foreign languages: Spanish and Portuguese. As described in Section 1.4, my premise was that Portuguese is closer to Spanish than to English, and that the construct of psychotypological distance (if it is true that perceived distance is usually equivalent to actual distance) would therefore lead to the prediction that if transfer did in fact take place it would tend to be from Spanish rather than from English.

Spanish and Portuguese are certainly closer to each other than to English in any commonly-used classificatory system. In historical/language-genetic terms, they are Romance languages while English is Germanic. In Greenbergian (Greenberg, 1963) terms, they are both SVO, Prepositional, Noun-Genitive, Noun-Adjective; English resembles them on the first two features, but not the last, being Genitive-Noun, Adjective-Noun. And in the terms of UG parameters, they are both null subject languages, while English is not. However, similar as they are, there are certain structural differences between the two languages which provide opportunities for negative transfer to take place (see 4.1 for some examples, and further comparison of the two languages).

Accordingly, the hypotheses which were tested in the exploratory study were as follows:

- H1- Learners will exhibit positive transfer from Spanish to Portuguese, where the rules are the same across the two languages, even where the Portuguese rule is different from the rule of English
- H2 – Where the Spanish rule and the Portuguese rule are different, negative transfer from Spanish will take place, and there will be error even where the Portuguese rule is the same as the rule of English

Whether in terms of positive or of negative transfer, we expected Spanish to override English.

In addition, I wished to ascertain whether there were any systematic patterns. I examined accuracy orders, which might be suggestive of an acquisition order, perhaps dependent on markedness considerations (c.f. Sections 2.4.2.2, 4.2.2 and 4.3.2).¹ As we saw in Chapter 2, previous research has tended to suggest that more

¹ It was borne in mind, however, that accuracy order alone does not necessarily reflect acquisition

marked structures are less likely to be transferred, although there is not unanimity in the field. Here I did not formulate these questions as a research hypothesis, since for this area I did not intend to subject the data to a significance test.

A further purpose was to explore the question of variability, to see whether there would be a difference in the amount of C.L.I. occurring when subjects operated in different styles, with varying amounts of attention to form, along Tarone's Interlanguage Continuum (1988). Hence the use of a variety of task types to elicit different styles.

6.1 Subjects

The exploratory study was carried out in the Department of Hispanic Studies, Edinburgh University. The subjects were a group of 27 learners of Portuguese, of both sexes, aged 18-21, who had been learning Portuguese for about six months, mainly following a traditional grammar-translation method. All were studying Spanish as their main subject, and had a relatively high level of previous knowledge of Spanish.

There was also a control group, consisting of learners with no previous knowledge of Spanish, from a local college of adult education. In terms of experimental rigour, there were many problems with this group. They did not parallel the experimental group in terms of group size, age range, teaching methodology, and - the major problem - level. They were at a considerably lower level than the University group, which puts into question the validity of using any data obtained from them for the purpose of comparison, and meant that they were only able to perform a small portion of the tasks performed by the University group. However, they were the only control group available at the time.

6.2 Procedure

The University group were asked to perform three tasks in all: a grammaticality judgement task, a controlled elicitation task (fill-in-the-gaps), and a free composition.

As discussed in 2.1.3, several researchers have found a more "careful style"

to be associated with greater L1 influence, and the aim was to see whether this would also be the case with L2 influence. The three tasks represent three different styles along Tarone's (1983) continuum between "careful" (or "superordinate") and "vernacular", requiring differing degrees of attention to form, with grammaticality judgements at the "careful" end of the scale, the free composition towards the "vernacular"², and the grammar manipulation task somewhere between the two.

The judgement task consisted of 29 sentences (see Appendix 1) and was devised to reflect various areas where Portuguese grammar differs from Spanish, and thus where transfer might occur; when analysing the data it was decided to focus on two only: the position of clitic pronouns and the uses of existential verbs *ser/estar/ficar*, in order to examine one syntactic and one semantic distinction. Subjects were asked to give their reactions to the Portuguese sentences on a four-point scale, and, where appropriate, to underline the part of the sentence they thought was incorrect.

The grammar manipulation task was included as an example of a very controlled production task (see Appendix 1). It covered only one of the areas mentioned above, that of clitic pronouns, and consisted of nine sentences in which subjects were asked to supply clitic pronouns in the appropriate place.

The subjects were also asked to write a free composition, in order to provide a sample of their performance in a less controlled production task. The topic set was a fairy tale, in the hope a topic belonging to an oral tradition would elicit a more casual style, and provide a greater contrast to the other tasks. The finished compositions were examined for instances of clitic pronoun placement, and of *ser/estar/ficar* used as a main verb (Thus where *ser* was used as an auxiliary it was ignored). Here, the concern was only for semantic correctness; thus, if the correct choice was made, the instance was counted as correct, even if mis-spelt, or with the wrong inflectional ending.

Out of all these tasks the control group were only able to perform certain sections of the grammaticality judgement tasks; for our purposes, only the *ser/estar* distinction was covered.

² not at the extreme end, however, which is represented by unattended speech data.

6.3 The Findings

6.3.1. Clitic Pronouns

6.3.1.1. Judgement Tasks (see Appendix 1)

Five of the sentences pertained to clitic pronoun syntax, and provided six contexts in total. They were designed to elicit learners' knowledge of Rules 1-3, as outlined in 4.2.

I first used the technique of implicational scaling to analyse the data, having hoped to determine whether there was a systematic pattern of L2/L3 transfer, - e.g. whether the more "marked" the structure, the less transfer would take place.³ In this aim, I was disappointed, as the C_{rep} of .88 fell short of the required .90 (c.f. Hatch and Farhady, 1982, ch. 14), showing a lack of predictability in the data; and the scalability coefficient of .2 was unsatisfactory.

However, displaying the data in this way led me to a different and unforeseen kind of pattern, which was potentially the source for new hypotheses. Re-examination of the fifth column of the scale, the one dealing with the declarative affirmative clause, where Portuguese differs from Spanish and where, therefore, negative transfer from Spanish was predicted, revealed what appeared to be a very neat division of the subjects into three groups: a "top" group, who all made correct responses, a "middle" group who all made incorrect responses, and a "bottom" group, who again all made correct responses.

My tentative interpretation was as follows: the top group might have acquired and fully automatised the system of Portuguese clitic pronoun syntax; the middle group responded correctly in every case where Spanish would help them, (and English would not), and incorrectly in the instance where Spanish behaves differently from Portuguese (and where English would have helped); and the bottom group were the only ones to commit errors where Portuguese acts the same as Spanish but differently from English, while all responding correctly where the Portuguese rule is the same as the English rule. In terms of percentages, in the context where Portuguese is like English (but unlike Spanish), they had 100% correct responses; but in contexts where Portuguese is like Spanish (but unlike English), they had only 60% correct responses – in contrast to the students in the first two groups,

³ As mentioned on p. 119, this was one of my predictions, although not formulated as a hypothesis.

who had 100% correct responses in the latter contexts.

The data suggested, then, that there were with three distinct groups of students: one who had fully acquired the rules; one who had not fully acquired them, and fell back on their knowledge of Spanish; and one who also had not fully acquired the Portuguese rules, fell back on English, their L1. Why did the second and third group use such different strategies?, None of the possible explanations could be explored here, due to the anonymity in which the tasks were conducted⁴. Perhaps students with greater general language aptitude are quicker to perceive similarities between languages, and to transfer from the L2 rather than the L1 if they perceive the former to be closer to the L3. Or perhaps Ringbom (1983) is correct in his assertion that we only transfer from a language in which we are already proficient (to test this, we would need to ascertain whether the students in the second group were more proficient in Spanish). Again, perhaps it is a question of attitude: the students in the second group may have a more integrative attitude towards Iberian culture and be willing to transfer from Spanish, while the students in the third group may be more ethnocentric and prefer (albeit unconsciously) to transfer from the mother tongue. Or maybe it is the result of an interplay between these and other factors. Whatever the reasons, the notion of different students transferring in different ways might help to account for the lack of scalability in the data.⁵

I also carried out a numerical analysis of the data. I examined the responses in terms of possible cross-linguistic influence, bearing in mind that it is often difficult to distinguish (at a surface level) positive transfer from complete, automatised knowledge, or negative transfer from overgeneralisation of a target language rule. I found the following results:

⁴ Unfortunately, I omitted to assign case numbers to the students during this exploratory study, so was unable to compare individuals' performance on the tasks with any other information about them. This methodological error was of course remedied in the final experiment.

⁵ I might again here mention the study by Gonzalez-Mena Lococo(1976) in which it was found that bilingual students transferred more from the stronger language, irrespective of perceived language distance. I would suggest that a further breakdown of the students into groups according to their attitudes to "Anglo-Saxon" culture might reveal a different pattern - with students transferring from the language with which they felt most emotional identification irrespective of linguistic distance.

Rule-type	correct judgements	erroneous judgements	
similar to Spanish and different to English	89.8% <u>possibly</u> due to Spanish influence	10.2% <u>possibly</u> due to English influence	
similar to English and different to Spanish	66.7% <u>possibly</u> due to English influence	33.3% <u>possibly</u> due to Spanish influence	
similar to neither Spanish nor English	58.3%	8.3% <u>possible</u> Spanish influence (i.e. pre-Aux. position):	33.3% <u>possible</u> English influence (i.e. post-main verb position):

Table 1: percentages of judgements that might be due to L1 or L2 influence on the clitic pronoun section of the test.

- Total percentage of responses possibly attributable to Spanish influence: 61.5%
- Total percentage of responses possibly attributable to English influence: 38.4%

While bearing very much in mind that transfer is only one of several explanations for interlanguage forms, this data would seem to suggest that Spanish might be responsible for more responses (both correct and incorrect) than English.

Degrees of Accuracy

Another aspect of the data was that some of the rules for Portuguese clitic pronoun syntax appeared to be applied correctly more consistently than others; there appeared to be an order of difficulty. I therefore looked again at the five contexts examined in the judgement task, ranging them in order from "most frequently judged correctly", to "least frequently judged correctly", to consider the respective roles played by the factors of "markedness" and transfer in determining this order.

To summarise the discussion of "markedness" vis-à-vis Portuguese clitic pronouns in Chapter 4, it would appear that the pre-verbal position can be considered "marked" vis-à-vis post-verbal, and that the contexts in which it appears can be considered marked vis-à-vis the context for post-verbal clitics.

Rule for position of clitic	Whether rule resembles Spanish or English	Markedness: Position	Markedness: Clause type
Negative clause; pre-verbal (96.3% subjects answered correctly).	Spanish	marked	"inter."
"Wh" interrog.; pre-verbal (92.6% correct)	Spanish	marked	"inter."
Relative clause; pre-verbal (92.6% correct)	Spanish	marked	marked
Embedded clause; pre-verbal (77.8% correct)	Spanish	marked	marked
Affirmative declarative sentence; post-verbal (66.7% correct)	English	unmarked	unmarked

Table 2: the order of frequency in which the rules of Portuguese clitic pronoun syntax were applied correctly in grammaticality judgements, and relating this to cross-linguistic influence and markedness.

It appeared from the analysis that the rule resembling English was applied correctly less often than the rule resembling Spanish, even though this rule involves the unmarked position of the pronoun and the unmarked clause type; the notion of "psychotypological distance" seems to over-ride that of "markedness", regarding this particular feature⁶.

This evidence leads me to question two claims in the literature: that "marked" forms are not transferred (e.g. Sjöholm, 1983; Zobl, 1984)⁷, and that bound morphology is not transferred (Zobl, 1980) (if we are considering clitic pronouns as bound morphology) (see also 3.1.1); or at least to add the caveat "unless the two languages in question are perceived by the learner to be typologically close".

6.3.1.2 Production Task.

The subjects' responses were analysed in the same way as for the grammaticality judgement task. It appears from Table 3 that the possible influence of Spanish was reduced in this task, when compared with the judgement task; indeed the possible influence of English appeared to be greater in some cases.

⁶ In terms of markedness, it matters little whether the correctness of the judgements was a result of automatised acquisition or of positive transfer. If due to acquisition, then more students have acquired the Spanish-like rule than the English-like rule, in spite of the Spanish-like rule being more "marked". If due to transfer, then more learners chose to transfer a "marked" rule from Spanish than an "unmarked" rule from English

⁷ This claim is not unanimously maintained by all researchers, however.

Rule-type	correct responses	erroneous responses	
similar to Spanish and different to English	75% <u>possibly</u> due to Spanish influence	25%	<u>possibly</u> due to English influence
similar to English and different to Spanish	93.75% <u>possibly</u> due to English influence	6.25%	<u>possibly</u> due to Spanish influence
similar to neither Spanish nor English	58.3%	8.3% <u>possible</u> Spanish influence (i.e. pre-Aux. position):	33.3% <u>possible</u> English influence (i.e. post-main verb position):

Table 3: percentages of responses possibly due to L1 or L2 transfer

As with the judgement task, I examined the order of accuracy for the responses in the controlled elicitation task in terms of "markedness". (Table 4) The most striking difference between this new accuracy order and the order for the judgement task was the degree of correctness in declarative affirmative clauses. In the judgement task this context elicited the fewest correct judgements, yet in the grammar exercise it elicited 100% correct responses. This suggests that English has more influence on production, while Spanish has more influence on judgement tasks, or maybe that the 100% correctness of responses in the production task is due to acquisition of the

Rule for position of clitic	Whether rule resembles Spanish or English	Markedness: Position	Markedness: Clause type
Affirmative declarative sentence; post-verbal (100% correct)	English	unmarked	unmarked
Negative clause; pre-verbal (93.75% correct)	Spanish	marked	"inter."
Infinitive; post-verbal (87.5%)	English and Spanish	unmarked	marked
Subordinate clause; pre-verbal (85.4% correct)	Spanish	marked	marked
"Wh" interrog.; pre-verbal (75% correct)	Spanish	marked	"inter"
Perfect tense, dec. affirm. sentence, between aux. and past part. (58.3% correct)	neither	marked	"inter" ⁸
After adv. phrase "já" in dec. affirm. clause; pre-verbal (37.5% corr.)	Spanish	marked	unmarked

Table 4: the order of frequency in which the rules of Portuguese clitic pronoun syntax were applied correctly in a written production task, and relating this to cross-linguistic influence and markedness.

⁸ "intermediate" because a declarative affirmative clause, but with "more morphological material" than would be the case if the tense was non-periphrastic

target rule. Perhaps here the ability to apply the new rule in production develops sooner than the ability to make decisions about correctness⁹. Maybe Spanish influence is more evident in knowledge than in production. Or again, it may have been that in the traditional "fill-in-the-gaps" exercise it was quite clear which structure of Portuguese was being elicited, and a more conscious analysis and application of the required rules might have been activated.

6.3.1.3 Data from the compositions

This was more difficult to interpret, as the subjects were not obliged to produce clitic pronouns. They created their own contexts, and some chose to do so minimally. The number of contexts in which clitic pronouns were used in individual compositions ranged from 3 to 18. Avoidance could help to account for the small number of errors overall. It can be seen in Table 5 that percentages alone, without figures, would be very misleading. For example, a clitic pronoun was only used after an adverbial phrase on one occasion, and this was correct¹⁰. Regarding declarative affirmative sentences, by far the most frequent context, performance was almost as consistently accurate in the free production task as in the controlled production task, and far more accurate than in the judgement task.

Context	correct uses	incorrect uses	% correct
declarative/affirm	66	2	97%
negative	6	0	100%
interrog. ("Wh")	0	0	0%
infinitive	31	2	93%
subord. clause	10	5	66.7%
perfect (post-aux.)	2	0	100%
imperative	2	0	100%
post-adv. phrase	1	0	100%
conditional(infix)	0	1	0%

Table 5: number and percentages of correct and incorrect uses of clitic pronoun order in composition data.

As with the other tasks, I then analysed the data in order of accuracy, taking into account transfer and "markedness", this time only considering the three most

⁹ c.f. Coppetiers'(1987) findings that even near- natives, who resemble native speakers in production, have very different judgements from Native Speakers.

¹⁰ Of course it is impossible to deduce from this either that only one student knew the rule and could apply it correctly, or, conversely, that this student was representative of the whole group, who would

frequent contexts.

Rule for position of clitic	Whether rule resembles Span. or Eng.	Markedness: Position	Markedness: Clause type
Affirmative declarative sentence; post-verbal (97% correct)	English	unmarked	unmarked
Infinitive; post-verbal (93.5%)	English and Spanish	unmarked	marked
Subordinate clause; pre-verbal (66.7% correct)	Spanish	marked	marked

Table 6: the order of frequency in which the rules of Portuguese clitic pronoun syntax were applied correctly in a composition task, relating this to cross-linguistic influence and markedness.

The implications seem to be quite different from the implications of the data obtained from the judgement task. The rules resembling English are applied with more consistent accuracy than the rule which resembles Spanish but differs from English. The rule which is unmarked both for position and clause-type appears to have been mastered to a greater extent than the rule which is unmarked only for position, while the rule which is marked on both counts is applied with the lowest level of accuracy. In this task, the "markedness" criterion does seem to over-ride that of "perceived language distance" even more clearly than in the controlled production task¹¹.

6.3.1.4 Summary of evidence on clitics

In this exploratory study I examined students' performance regarding Portuguese clitic pronoun syntax, in three different tasks. The data were found to be somewhat conflicting. While there was evidence consistent with transfer from both Spanish and English, the degree of transfer would appear to vary from task to task. Moreover, there are different accuracy orders across the different tasks for the responses broken down by context. While there is evidence of psychotypological similarity outweighing markedness as a criterion for the occurrence of transfer in the grammaticality judgements, this appeared not to be the case in the production tasks, where subjects seemed to have been more reluctant to transfer marked forms from Spanish. I also noted the possibility that type of transfer may vary between learners; there was tentative evidence suggesting some subjects transferring from Spanish,

all have performed correctly had the occasion arisen.

¹¹ Whether this could be a generalised feature of production tasks might be a fruitful topic of further research.

with others transferring from English¹².

Unfortunately the control group were not yet at a level to cope with these tasks, so I was unable to compare the Spanish-speaking subjects' performance with that of non-Spanish speakers.

6.3.2. Results for the Copular Verbs

6.3.2.1 The Judgement Task (see Appendix 1)

Six of the sentences (1-6) pertained to existential verbs.

- (1) contained *estar* used incorrectly for permanent location (correct in Spanish);
- (2) contained *ser* used incorrectly for temporary state (also incorrect in Spanish);
- (3) contained *ser* used correctly for permanent location (incorrect in Spanish);
- in (4) *estar* is used correctly for temporary location (also correct in Spanish);
- (5) contained a correct uses of *ficar* for permanent location;
- (6) contained a correct uses of *ficar* with inchoative meaning ("become").

As with the clitic pronouns, the results were first analysed using implicational scaling, this time with more satisfactory results. The C_{rep} of .9 and the coefficient of scalability of .64 showed that our data achieved the minimum level of predictability and scalability, implying that there was a meaningful overall pattern. I therefore examined the data in more detail.

I analysed it in a similar way to the clitic pronoun data. In speaking of transfer from English here, I am assuming that English speakers regard *ser* as the base or "core" translation of "be" (or "primary counterpart", c.f. Arabski, 1979), based partly on the far higher frequency of *ser* (Van Patten, 1996), and partly on intuition¹³. In examining the correct judgements, the judgements on *ficar* were discounted. While always bearing in mind the alternative explanations for accurate performance and for

¹² There are various possible reasons: choice of source language for transfer may depend on proficiency at the L2, type of motivation, attitudes to target culture - it was not possible to investigate these dimensions with this experiment, as we has not collected the relevant data.

¹³ Another possibility would be that learners expect one verb corresponding to "be", so whichever is learnt first of *ser* and *estar* may be overgeneralised to all contexts; this in itself would constitute a kind of conceptual transfer from English. Therefore, incorrect acceptance of BOTH sentence 1 AND sentence 2 could be attributed to negative L1 transfer - one would need to examine their answers to the other items for other instances of overgeneralisation, to decide.

error, it can tentatively be suggested that Spanish exerts a greater influence than English on these learners' interlanguage in this area.

	erroneous judgements	correct judgements
Total number	45	65
<u>possibly</u> attributable to Spanish	33(73.3% of errors)	44 (67.7% of errors)
<u>possibly</u> attributable to English	10 (22.2%)	21 (32.3%)
Other	2 (4.5%)	

Table 7: correct and erroneous judgements on the *ser/estar* section of the test

The same impression was given by the accuracy order:

Rule/ feature of Portuguese	Possible transfer effect
<i>ficar</i> (permanent location) (100% correct)	Spanish positive if correct?
<i>ficar</i> (inchoative) (92.6% correct)	Spanish positive if correct?
<i>estar</i> (temporary location) (92.6%)	Spanish positive if correct.
<i>estar</i> (<u>not</u> used for permanent location)	Spanish negative if incorrect.
" <i>ser</i> " <u>not</u> used for temporary state (70.4%)	English negative if incorrect?
" <i>ser</i> " (permanent location)(38.9%)	Spanish negative if incorrect.

Table 8: the accuracy order (in terms of percentages of correct judgements) for the various verbs of existence in the judgement task

Here, the sentence which gave rise to fewest accurate judgements exemplifies the only Portuguese rule which is very different from Spanish regarding existential verbs, so I may be justified in suggesting that psychotypological similarity may well be a factor influencing transfer here.

More subjects accepted the correct use of *estar* for temporary location than rejected the incorrect use of *ser* (No. 2) for temporary state, where Spanish knowledge would have helped lead to accurate judgements in both cases. Markedness considerations alone would have led them to prefer *ser* (as default copula verb) in both instances; at first sight, markedness does not appear to have an effect here. However, it could be that they recognise the Spanish-like and correct use of marked *estar* when they see it in context, but that the rule is not sufficiently automatised for them to go on to reject the incorrect but unmarked *ser*, even when

the same rule (*estar* for temporary situations) is exemplified in each sentence. Alternatively, this might simply be an instance of subjects' greater propensity to accept than to reject in general, in this type of task.

6.3.2.2 The Compositions

The data obtained from the compositions was inconclusive. Two of the subjects did not use any existential verbs; two others used only one, on one occasion; ten was the highest number in any one composition. Out of a total of 65 self-provided contexts, we found 6 errors (over 6 compositions), in each case, a misuse of *ser*; in two cases it was used to denote temporary location, and in four cases temporary state. These errors cannot be attributed to transfer from Spanish; they could be attributed to transfer from English, if we do regard *ser* as the "primary counterpart" of "be". Could it be that in the freer production activity these subjects relied more on mother tongue? We have already seen such cross-task differences, yet there is also plenty of evidence of correct uses of *estar* in appropriate contexts (which could be said to be due to positive transfer from Spanish) in fact, these make up 30% of the data.

6.3.2.3 The non-Spanish-speakers' data

The results were analysed using implicational scaling. The C_{rep} of .87 indicated that I could not be sure of predicting students' performance from this data. The coefficient of scalability of .62, just over the minimum required, suggests that there may have been some implicational pattern underlying the group's performance on this particular occasion.

I compared this data with the University data from two perspectives. Firstly, I looked at the number of correct responses consistent with transfer from Spanish. For these students, such responses could obviously not be interpreted as resulting from transfer, but if there were fewer such responses than with the University group, there would be some justification for explaining the residue in terms of Spanish transfer. Again, I discounted the sentences containing *ficar*. Calculation of the residue suggests that 1.5% of correct responses from the University group might be accounted for in terms of positive transfer, and that 21.1% of their incorrect responses might be the result of negative transfer (Table 9).

		Experimental Group (University)	Control Group (Stevenson College)
Correct could = positive transfer from Spanish	Correct	81.5%	80%
	Incorrect	18.5%	20%
Incorrect could = negative transfer from Spanish	Correct	38.9%	60%
	Incorrect	61%	40%

Table 9: responses consistent with L2 transfer for the experimental and control groups

Secondly, I looked at the order of accuracy. Table 10 shows, in order of frequency of correct judgements, the items/features focussed on in the judgement task.

University	Control group
1 " <i>ficar</i> ":permanent location	1." <i>ficar</i> ": permanent location
2." <i>ficar</i> ":inchoative.	2." <i>ficar</i> ": inchoative
3." <i>estar</i> ": temporary location	3." <i>estar</i> ": temporary location
4." <i>ser</i> ":wrongly used for temporary state	4." <i>ser</i> ": permanent location
5." <i>ser</i> ":permanent location	5." <i>estar</i> ": wrongly used for permanent location
6." <i>estar</i> ":wrongly used for permanent location.	6." <i>Ser</i> ":wrongly used for temporary state

Table 10: accuracy order of experimental and control groups, *ser/estar* task.

While the university group were least frequently inaccurate in application of the rule which is different from Spanish, the control group were more able to apply that rule than the (Spanish-like) rule that *ser* cannot be used for temporary states. This slight difference in accuracy order suggests that L2 might be operating with the University subjects; however, the existence of so many alternative possible explanations, in terms of difference in level and difference in input, means that more rigorously conducted experimentation is needed.

Because of the sample size, and the number of variables not controlled for, no

firm conclusions could be drawn from this comparison. However, the results were still suggestive enough to give impetus for further research; in general, the examination of the data on the existential verbs did seem to point to our principal subjects' interlanguage knowledge being affected more by their Spanish than by their English.

6.3.3. Variability

To examine variability in subjects' performances over the different tasks, unmatched T-tests were performed, comparing accuracy in judgement tasks with accurate production in the composition task¹⁴. Regarding clitic pronouns, subjects performed significantly better on the free production task than on the judgement task. With the copula verbs, the subjects also performed better on the free production task, but the difference was not significant¹⁵.

As to the reasons for these differences, it can be surmised that the tasks would have tapped different kinds of knowledge along the knowledge/control continuum. Then there is the question of style-shifting (c.f. Tarone, 1983), i.e. perhaps the composition task elicited a more casual style closer to the subject's own interlanguage, while the two other tasks elicited more careful styles containing more evidence of negative transfer. Alternatively, it could simply have been because in the composition task students could avoid using items which they felt unsure about. These questions could of course not be answered adequately on the basis of such insufficient data.

6.4 Summary

This exploratory study was an attempt to investigate crosslinguistic influence on the interlanguage of English-speaking learners of Portuguese with previous knowledge of Spanish. My hypothesis was that Spanish would exercise more influence than English, the subjects' mother tongue, because of the perceived similarity between the two Romance languages.

¹⁴ Given the anonymity in which the tasks were carried out, it was not possible to perform matched T-tests.

¹⁵ However, perhaps we can say very tentatively that there was a tendency to perform better, as the result would have been significant with a one-tailed test or at the .1 level of significance.

I found evidence for possible transfer from Spanish in the analyses of both structures. However, there was some evidence that it did not operate across the board or in a uniform way. With the clitic pronouns, it appeared that some subjects' interlanguage was more susceptible to Spanish influence, while others' was more susceptible to English influence. Several possible explanations were put forward for this phenomenon, such as differing linguistic abilities, differing levels of Spanish proficiency, and different types of motivation.

Regarding "markedness", it appeared from the grammaticality judgements on clitic pronouns that psychotypological distance tended to over-ride markedness as a factor affecting transfer. Results of the production tasks, however, suggest the opposite. In general, we observed a fairly considerable amount of variability across the different tasks, suggesting that different modes of operating in a language involve different types and degrees of cross-linguistic influence.

This study did not include a comparison of the amount of transfer in the *ser/estar* area with the amount in the clitic pronoun area. However, I suspected that syntactic structures may be less transferable from related L2 to L3 than grammatico-semantic ones, perhaps because of the perceptual saliency of (for example) a difference in word order compared to a difference in semantic field: learners would expect to see a similar word order where the L3 was related to the L2, and therefore a difference would be more immediately obvious. This intuition, in combination with some claims in the literature (see 3.1.2.1.), led me to incorporate such a comparison into the main study, to which I will now proceed.

7. METHODOLOGY AND RESEARCH DESIGN

This chapter discusses the methodology used in my main study for data collection, outlines the research hypotheses and describes the types of analysis used to test the hypotheses.

7.1 Aims of the Study

For this piece of research, it was decided to improve on and extend the exploratory study described in Chapter 6, to ascertain whether the previous findings (that there is a tendency for English-speaking students of Portuguese with previous knowledge of Spanish to transfer more from Spanish, both in terms of positive and of negative transfer, than from English) were in fact replicable, with more subjects, a real (albeit tiny) control group, and more thorough statistical analysis. The aim was also to further explore some other possible affective dimensions which might be involved, as discussed in Chapter 6, and eventually attempt to build up a bigger picture of what might be involved in L2>L3 transfer.

I again looked at the areas of clitic pronoun syntax and the *ser/estar* distinction. This time it was decided to omit the free production task, which in the pilot had not yielded enough instances of the relevant structures to be useful. Thus, there were just two different task-types for both areas:

- 1) Grammaticality judgement tasks, for each structure
- 2) Two controlled production tasks (traditional grammar exercises of the "fill-in-the-gaps" type; one for each structure)

These tasks are further discussed, and described in detail, in 7.3.3.1.-7.3.3.4.

The purpose of using two different task-types was to examine variability on two dimensions: the knowledge-control continuum, and Tarone's style continuum.

Regarding the former, the grammaticality judgement tasks were intended to examine the effect of L1 and L2 on learners' underlying competence, or knowledge of the rules. Such tasks represent the nearest approximation researchers can achieve to discovering the way learners' grammatical rules are represented in their minds.

Although (as with any task) they are still in some sense "performing", they are only asked to recognise correctness, not to produce correct forms¹. This means that there

¹ The word "approximation" is used bearing in mind Ellis' (1994) warning that "learner's mental

is less chance that the degree of control they have over their knowledge will colour the picture given of the state of the knowledge itself. The two controlled production tasks were meant to examine the effect of L1 and L2 on learners' control over their knowledge when it came to producing the form when faced with a choice².

Regarding the latter, in the exploratory study, the comparison had been between the free production task and the judgements, which were clearly further apart on Tarone's (1983, 1988) style continuum than the tasks to be considered here. However, the comparison made in the present study was still felt to be valid, as the tasks do represent different points on the range: the judgement tasks represent the most "careful" style, whereas the controlled production task is somewhat more towards the middle of the scale³

A caveat is also necessary here on the problem of distinguishing whether we are tapping explicit or implicit knowledge; being aware that both types of knowledge could be accessed by means of these tasks, I attempted to use the instructions to steer the subjects in the direction of using implicit knowledge (see Section 7.3.3.2.4.). As these students had followed the same course or type of course (see Appendix 7), and had all been taught grammatical rules explicitly, the level of explicit knowledge across individuals could be expected to be similar; what was of interest here was to see what differences there were regarding their implicit knowledge.

The purpose of examining two different structures was to ascertain whether C.L.I. worked in the same way for the two types of structure - clitic placement, where the differences between Spanish and Portuguese are purely syntactic, and the *ser/estar* distinction, where the semantic field of "existence" is actually divided up differently in the two languages.

A further aim of the study was to observe whether the amount of transfer taking place decreased as the subjects' proficiency increased, hence the comparison across levels. This comparison was not made in the exploratory study because of

knowledge is not open to direct inspection; it can only be inferred by examining samples of their performance" (13)... "There is no direct window into competence" (673) (my underlinings)

² I base my understanding of "knowledge" and "control" on Sharwood Smith's definitions: knowledge as "a systematised body of mental representations underlying the learner's language use" and control as "the productive and receptive control possessed by the language user over the knowledge he or she has of various aspects of the linguistic system" (Sharwood Smith, 1994, 14-15)

³ . In retrospect I feel it is to be regretted that no spontaneous or semi-spontaneous data was obtained and used for comparison - this matter will be discussed further in Section 9.2.

time constraints, but lack of unanimity in the literature combined with the fact that (to my knowledge) there is no study connecting L2/L3 C.L.I. with level, suggested that this would add an interesting further dimension. Moreover, (as with the exploratory study) I wished to examine the dimensions of "markedness" and "psychotypological distance"; I have not formulated the latter questions as hypotheses, as they were not explored using significance testing. (see Chapter 6).

A completely new aspect of the research was the inclusion of attitude and motivation questionnaires and a semantic differential task, arising from the finding described in 6.3.1.1. There appeared to be individual differences in the relative amount of recourse to L1 and to L2, and this part of the research is an attempt to tease out factors which might affect this individual variation. Affective variables have sometimes been put forward in the literature (see Section 2.3.3) as one potential cause of C.L.I., but to my knowledge, this has not gone beyond speculation; there has been no empirical study investigating this possible link. For further description and discussion of the tasks involved, see Sections 7.3.3.5 - 7.3.3.9.

Finally, I looked at directionality of transfer, to see whether Portuguese-Spanish transfer also occurs among these learners. Here, I again used a grammaticality judgement task, testing the equivalent Spanish structures. As this represented only one dimension of the study, I did not choose to examine variability across tasks here.

7.2 Hypotheses

The research questions outlined in Chapter 1 are here reformulated as hypotheses. There is one "superordinate" hypothesis concerning the occurrence of L2/L3 C.L.I., and seven further hypotheses to be tested in the event of the alternative hypothesis being accepted in the case of the superordinate hypothesis.

(1) H_O There will be no significant transfer from Spanish to Portuguese.

H₁ There will be significant **positive** transfer from Spanish to Portuguese, leading

to the production of the correct form, where the rules are the same across the two languages. This will occur even where the Portuguese rule is

different from the English rule, where L1 influence would have led to error.

H₂ Where the Spanish rule and the Portuguese rule are different, significant **negative** transfer from Spanish will take place, and there will be error.

This will occur even where the Portuguese rule is the same as the English rule, where L1 influence would have led to production of the correct form.

This is the "superordinate" hypothesis on which the other seven depend⁴.

(2) H_O There will be no significant difference in the amount of L2-L3 transfer taking place across the two tasks.

H₁ As in the exploratory study, subjects will transfer significantly more from L2 on the judgement tasks than on either of the production tasks.

(3) H_O There will be no significant difference in the amount of L2-L3 transfer taking place, whether the difference between the two structures is semantic or purely syntactic.

H₁ Because of the greater perceptual salience of word order differences, as compared to differences between semantic fields, subjects will transfer significantly more from L2 on the structure where the difference between the two languages is semantic, than on the structure where the difference is purely syntactic

(4) H_O There will be no significant difference in the amount of L2-L3 transfer taking place, across the three levels.

H₁ The amount of L2-L3 transfer taking place will decrease significantly as the subjects' proficiency, (indicated by their level) increases.

(5) H_O There will be no significant difference in the amount of L2-L3 transfer taking place, whether or not the subjects have a positive attitude to Iberian culture, and

⁴ See Section 1.5 for a discussion of my decision to use the terms "positive" and "negative transfer", despite their association with behaviourist writers, to apply to the particular phenomena described in the study, while using C.L.I. as a superordinate terms to cover the various ways one language can influence another in Interlanguage.

whether the subjects prefer Iberian culture/people to British culture/people, or vice versa.

H_{1A} Subjects who have a positive attitude towards Iberian culture, as measured by the questionnaire, will transfer significantly more from L2 than from L1.

H_{2A} Subjects who have a negative attitude towards Iberian culture will transfer significantly more from L1 than from L2.

H_{1B} Subjects who prefer Iberian culture/people to British culture/people, as measured by the questionnaire and the semantic differential, will transfer significantly more from L2 than from L1.

(previously phrased : "More anomic students will transfer more from L2 than from L1.")

H_{2B} Subjects who prefer British culture/people to Iberian culture/people will transfer significantly more from L1 than from L2.

(previously phrased: "More ethnocentric students will transfer more from L1 than from L2")

(6) H_O There will be no significant difference between the amount of L1- L3 transfer and the amount of L2-L3 transfer, irrespective of subjects' attitudes towards Iberian culture.

H₁ Subjects with a more positive attitude towards Iberian culture, as measured by the questionnaire and semantic differential, will transfer significantly more from the L2 and less from the L1 than those with a less positive attitude.

(7) H_O There will be no significant difference between the amount of L1- L3 transfer and the amount of L2-L3 transfer, either among integratively motivated subjects or among instrumentally motivated subjects; nor will there be any significant differences between the types of subjects in the amount of transfer occurring.

H_{1(a)} Subjects professing integrative motivation will transfer significantly more from L2 than from L1.

H₁(b) Subjects professing integrative motivation will transfer significantly more from L2 than subjects professing instrumental/cognitive motivation.

H₂(a) Subjects professing instrumental/cognitive motivation will transfer significantly more from L1 than from L2.

H₂(b) Subjects professing instrumental/cognitive motivation will transfer significantly more from L1 than subjects professing integrative motivation

(8) H₀ There will be no significant difference between the amount of L2- L3 transfer and the amount of L3-L2 transfer. Transfer will be bidirectional.

H₁ Students will transfer significantly more from L2 to L3 than from L3 to L2; in other words they will transfer more from the language in which they are more proficient.

7.3 Procedure

7.3.1. Subjects

The tests were administered to:

- undergraduate students of Portuguese, with previous knowledge of Spanish, at Edinburgh, Glasgow, Liverpool and London universities (the experimental group).
- Students of Portuguese, comparable in terms of age and level, with no previous knowledge of Spanish (the control group).

As in the exploratory study, this was a quasi-experimental (Robson, 1993), or naturally- occurring (Brown, 1988) group design. All members of each class concerned took part as an integral part of their course; participation was not on a voluntary basis. Total numbers of students in the experimental group (i.e. those with previous knowledge of Spanish) were as shown in the table overleaf:

Because of the nature of the grammatical differences between European and Brazilian varieties of Portuguese, in the area of clitic pronoun syntax (see Chapter 4),

the learners of the latter variety would have to be excluded from the analysis of the clitic tests; unfortunately, this meant the exclusion of almost all of the London group, for that language feature.

Beginners	Edinburgh 13 (+ 2 German N. S.,+ 1 French N.S.) Glasgow 10 (+1German N.S.) Liverpool 7 London 5 (4 of whom learning Brazilian Portuguese) + 1 Polish N.S.) Total 35
Intermediate	Glasgow 9 Liverpool 11 Total 20
Advanced	Liverpool 3 Edinburgh 5 (of whom 1 learner of Brazilian)(+1 German N.S., + 1 Fr./Greek N.S.) total 8
Control (Beginners)	Edinburgh 6 Glasgow 3 London 1 total 10

Table 11 : details of experimental and control groups

Apart from date of birth (see Section 8.2.2) the other information we asked subjects to supply was:

- their native language, to check whether they were N.S. of English; for the purposes of this study, non-N.S. of English would be discounted from the main analysis.
- their previous knowledge of languages other than English and Spanish, as these may prove to be additional sources of transfer,
- their perceived Portuguese ability
- their enjoyment of learning Portuguese
- whether they have had extensive experience of travel or residence in a Spanish-speaking country, in case there should be a relationship between such experience

and the occurrence of transfer.

I interviewed the class teachers at each of the universities, in order to ascertain how many contact hours their students had with the language, when and how the students had met the specific structures being tested, what kind of teaching methods the teacher used, how motivated and how proficient they perceived the students to be, and what their own intuitions were about the type and amount of transfer from Spanish they found in their students' Portuguese. The information and opinions thus gleaned can be found in Appendix 7.

7.3.2 Administration

In each case, the experiment was conducted in a quiet, reasonably comfortable classroom; environmental factors were controlled for. Students were not told the aims of the study until **later**, in order to try to avoid problems with subject expectancy.

To attempt to partially counteract the effect of the unnaturalness of the test-like situation, the subjects performed the tasks and answered the questionnaires anonymously. This meant they could feel reassured that they would not be individually assessed on their performance. In this way, it was hoped to minimise anxiety, and thus minimise attention to structure and reliance on learnt rules, and also - at a more mechanical level - avoid cheating on the linguistic tasks. In the case of the questionnaires, I hoped to thus encourage subjects to answer the attitude questionnaire honestly rather than necessarily in "socially acceptable" ways (see Section 7.4.3.5). However, as it was necessary to compare their individual performance across tasks, and to correlate their performance with their attitude scores, they were asked to write their date of birth at the beginning of each task-sheet and questionnaire.

This was to serve an additional purpose, that of controlling for age, in case age should turn out to be a variable affecting transfer. I intended bear in mind the possibility that any subject who was considerably older than the average undergraduate does not form part of the same population as the rest of the subjects. As the average undergraduate is aged between 17-22, I set the cut-off point at 25,

given that any such student would have been outside full-time education for at least three years, and would thus qualify for "mature student" status in the eyes of university authorities. However, when I analysed the data, I did not find any of the older students' responses to represent extreme values, so resolved to include them with the rest of the group.

7.3.3. Tasks

My description of the tasks used includes an attempt to justify the decision to use each task-type or measurement-type in spite of any concomitant problems.

Table 12 on page 144 summarises the contents and aims of the tasks.

7.3.3.1. Grammaticality Judgement Tasks: Issues

Grammaticality Judgement tasks are used because they are the only method which can attempt to tap underlying knowledge (see page 116); correct production can be due to factors other than knowledge, and conversely, intervening factors may prevent knowledge manifesting itself in performance. Admittedly, these tasks are not foolproof. The subject can guess in a judgement task as well as in a production task, c.f. Khaldi, (1982) who mentions the strategy of always judging the sentence correct; he dealt with this problem by eliminating subjects whose judgements were the same on every item. Likewise, Schachter (1976) mentions "Random" judgements. Moreover, a correct judgement can also reflect positive transfer used as a communication strategy; it need not reflect knowledge.

In a comprehensive critique, Sorace (1996) considers the major attacks directed against the use of acceptability judgements as linguistic evidence; most of these are concerned with questions of validity or reliability. One suggestion has been that intuitions may not reflect grammatical competence at all – they may stem rather from a separate faculty; however, she cites research showing that judgements seem to correlate highly with performance, meaning that this particular criticism can probably be disregarded.

Another criticism has been that intuitions, though indeed connected to grammatical competence, may also be affected by other factors, such as pragmatic considerations, context of presentation (i.e. whether the preceding sentences were

grammatical or ungrammatical), or linguistic training; these considerations can be controlled for up to a point, but never totally excluded. Unrelated psychological/social factors may also have an influence, like tiredness, impatience, resistance to the task; though conceivably, some of these should be less influential here than with production tasks, cf. Kohn (1986) who chose to use this instrument specifically to avoid such “retrieval constraints” (p.28)

There is also the question of what knowledge exactly is being accessed: the rules learners actually follow or the rules they think they should follow. “It is difficult to tell whether subjects reveal what they think, or what they think they should think” (Sorace, 385). An additional question is whether we are tapping unconscious, tacit knowledge or conscious, metalinguistic knowledge; a correct judgement could reflect either kind of knowledge. And finally, judgement tasks cannot measure the degree of automatisisation of the knowledge being accessed.

Sorace (op cit.) also reminds us that the peculiarly transitional nature of L2 knowledge needs to be at the forefront of our minds when using judgement tasks to explore the nature of interlanguage. Allied with this is the issue of indeterminacy. Learners' grammars do not have the same stability as Native Speaker grammars; they are “permeable” (see Section 2.3.1), a rule may waver and fluctuate, and whole areas of the grammar are prone to restructuring. This makes it difficult to measure the reliability of a judgement task: the most common test of reliability is replication; however, with Non Native Speakers differential performance on different occasions may reflect a genuine change in competence rather than a lack of reliability in the test⁵ (c.f. Johnson et al, 1996).

Another issue is the certainty of the learner's judgements. If we really want a clear picture of the state of our subjects' grammatical knowledge, it is highly desirable to tap the difference between the dimensions of certainty, accuracy and consistency in their judgements; but there are problems here when it comes to

⁵ on the other hand, if there is **not** a decent interval between the two administrations of the test, subjects may well perform artificially well due to learning effect. Ways that have been proposed to circumvent these problems (cf. Greenbaum, 1977) are: replicating with different subjects from the same speech community (but there is the problem of defining this – do we mean the same proficiency level? same language background?) – or using materials which are different but equivalent. The problem with the latter is that sentences may be perceived as equivalent by the researcher but not by the subjects.

analysis⁶. Sorace suggests the possibility of a separate scale for certainty, while admitting it could be quite difficult for subjects to have to give this kind of “meta-evaluation”.

Sorace (op cit) criticises the bulk of linguistic research for not fulfilling the necessary basic conditions of validity and reliability. A major problem is that the kind of scale typically used is still only an **ordinal** scale, it does not measure the differences between sentences’ acceptability in a way that can be analysed arithmetically. “Nominal and ordinal data do not satisfy the parametric assumptions because the intervals between successive classes are not equal” (395). To circumvent these problems, she proposes the use of “magnitude estimation tasks”, used in psychophysics. The biggest advantage of this method appears to be that these tasks produce interval scales, and are much more precise and sophisticated in the range of responses that can be elicited. However, certainty and accuracy are still conflated in this method. A further advantage of such tasks is that they are timed, and subjects may therefore not have the opportunity to access metalinguistic knowledge; we may feel more confident that it is “tacit” knowledge that is being tapped (403). Weighed against this is the stress factor always involved in a timed experiment, although Sorace (p.c.) maintains that in practice this proves to be irrelevant.

A final point to consider here is the question of discourse factors. Often decontextualised sentences can be correct in one context and incorrect in another⁸. Bolinger (1968) gives several instances of how context can bestow acceptability, e.g. “I’m the soup” when spoken by a restaurant client to a waitress. Arthur (1980), found that where a judgement task took the form of a connected text to be judged and where possible corrected (both by native speakers and learners), there was greater agreement among native speakers than for unrelated sentences.

However, I decided to keep to the traditional sentence format, because the

⁶ e.g. implicational scaling can be used where a judgement is either correct or incorrect, but how can the uncertain judgements be collated?

⁷ In a “magnitude estimation task”, the subject is asked to assign a numerical judgement to a stimulus, e.g. a sentence. She is then given further stimuli, and each time has to assign a number that reflects the relationship between the new stimulus and the original one – e.g., if the sentence is twice as acceptable as the original one, she should give it a number with twice the value of the first number.

⁸ For example, the occurrence of subject-verb inversion in Spanish depends on discourse factors: the relationship between given and new information; some Spanish-speaking informants performing a judgement task (see Rodger, 1988, for a study of the pro-drop parameter) involving subject-verb inversion claimed in several cases that it was impossible to make a definite judgement given the

areas of research (clitic pronouns and the "ser"/"estar" distinction) are so specific that it would be difficult to find a text containing sufficient examples of each, and for all the contexts of occurrence; and a text artificially contrived for the task in order to contain all the desired instances would sound highly unnatural. Moreover, in most cases, the position of the clitic or the choice of "ser"/"estar" depend on syntactic (in the former case) or semantic (in the latter case) considerations rather than on contextual ones.⁹

7.3.3.2. Grammaticality Judgement tasks: this Study

These tasks can be found in Appendix 4; there is a detailed sentence-by-sentence breakdown in Appendix 6.

7.3.3.2.1. Clitic pronouns

This task consisted of 24 sentences, 4 groups of 6 :

- 6 where clitic pronoun (c.p.) is **correctly** in **pre-verbal** position, i.e. "Wh" questions, subordinate clauses, negative statements. Here, correct judgement could reflect either acquisition of the target rule or positive transfer from Spanish; incorrect judgement could reflect either overgeneralisation of the Portuguese unmarked rule, or negative transfer from English
e.g. 30) Eles disseram que o mataram
(They said they killed him)
- 6 where c.p. is **incorrectly** in **pre-verbal** position, i.e. declarative, affirmative simple sentences, and polar questions. Here, correct judgements could reflect either acquisition of the target rule or positive transfer from English; incorrect judgements could reflect either negative transfer from Spanish or overgeneralisation of the Portuguese marked rule.
e.g. 31) Te vejo amanhã à mesma hora
(I'll see you tomorrow at the same time)
- 6 where c.p. is **correctly** in **post-verbal** position, i.e. declarative, affirmative simple sentences, and polar questions. Here, correct judgements could reflect

context of the sentence alone.

⁹ There is one exception, at least; as mentioned in Section 4.2.1., the rule about clitics being preverbal in embedded sentences is relaxed when the verb is more than a certain distance from the complementiser; however, for the purposes of my study I did not intend to include such contexts.

either acquisition of the target rule or positive transfer from English; incorrect judgement could reflect either negative transfer from Spanish or overgeneralisation from the Portuguese marked rule.

e.g. 32) Esta canção faz-me chorar sempre

(This song always makes me cry)

- 6 where c.p. is **incorrectly** in **post-verbal** position, i.e. "Wh" questions, subordinate clauses, negative sentences. Here, correct judgements could reflect either acquisition of the target rule or positive transfer from Spanish; incorrect judgements could reflect either negative transfer from English or overgeneralisation of the unmarked Portuguese rule.

e.g. 33) Ele disse que amava-te

(She said she loved you)

Clearly, either kind of incorrect judgement **could** be seen as reflecting overgeneralisation of **one** of the Portuguese rules, as both positions are possible in different grammatical contexts. It was hoped that the establishing of an implicational order of acquisition of these rules would help to distinguish over-generalisation from transfer.

In the two groups where the clitic should correctly be placed post-verbally, three sentences were in the present tense (two affirmative and one polar interrogative) and three were in the past (two affirmative and one polar interrogative). In the two groups where the clitic should correctly be placed pre-verbally, two sentences were in the present tense (one negative and one affirmative post-adverbial - *ja* in both cases) and four were in the past (one interrogative and three embedded sentence types: one relative clause, one reported speech sample and one indirect question).

7.3.3.2.2. *ser/estar*

In this instance, English > Portuguese negative transfer will be - very tentatively - taken to be reflected by judgements of "correct" for ungrammatical sentences that would also be ungrammatical in Spanish, and by judgements of "incorrect" for grammatical sentences that would also be grammatical in Spanish. The rationale here is that the lack of a distinction in English **could** be the cause of learners failing to

make the distinction in the target language, which in itself constitutes a form of cross-linguistic influence. Positive transfer from English is not conceivable, given the nature of the structure.

Here the judgement task consisted of 28 sentences; 2 groups of 6 and 4 groups of 4.:

- 4 with **Spanish-like, correct use of *ser***, i.e. used to describe permanent states (professions; nationalities; permanent characteristics) Correct judgements here would mean acquisition of the target rule or positive transfer from Spanish; incorrect judgements might reflect negative transfer from English, in the sense that the distinction does not exist in English.
e.g. 34) O seu marido era russo
(Her husband was Russian)
- 6 with **un-Spanish-like, correct use of *ser***, i.e. used to describe permanent location (Spanish requires *estar*) Correct judgements would reflect acquisition of target rule; incorrect judgements might reflect negative transfer from Spanish.
e.g. 35) Onde é o teatro?
(Where is the theatre?)
- 4 with **incorrect use of *ser*** for temporary states/ locations; here both Portuguese and Spanish require *estar*. Correct judgements would mean acquisition of the target rule **or** perhaps positive transfer from Spanish; incorrect judgements might mean negative transfer from English.
e.g. 36) O Joao não é triste hoje
(John isn't sad today)
- 4 with **Spanish-like, correct use of *estar***, i.e. used to describe temporary states/ locations. Correct judgements would mean acquisition of the target rule, or possibly positive transfer from Spanish; incorrect judgements might mean negative transfer from English.
e.g. 37) Onde estão os teus amigos?
(Where are your friends?)
- 6 with **Spanish-like, incorrect use of *estar***, i.e. used to describe permanent location. (Portuguese requires *ser*) Correct judgements would probably mean acquisition of the target rule; incorrect judgements would likely mean negative transfer from Spanish.
e.g. 38) Sintra está perto de Lisboa

(Sintra is near Lisbon)

- 4 with **incorrect** use of *estar* for permanent states; here both Spanish and Portuguese require *ser*. Correct judgements would mean acquisition of the target rule, or positive transfer from Spanish; incorrect judgements might mean negative transfer from English.

e.g. 39) O teu pai está médico?

(Is your father a doctor?)

The two groups of six contained three present tense sentences (one affirmative, one negative, one interrogative) and three past tense sentences (one affirmative, one negative, one interrogative). The four groups of four each contained one present tense affirmative sentence, one present tense negative sentence, one present tense interrogative sentence, and one past tense affirmative sentence. In each of the two groups of sentences describing permanent features, two of the cases involved personal characteristics, one involved nationality, and one profession. In each of the two groups of sentences describing temporary features, two of the cases involved mood and two involved temporary location. The two groups of six were devoted to permanent location.

7.3.3.2.3 Spanish Judgement Task

This task, which can be found in Appendix 4, consisted of 48 sentences, half involving clitic pronoun placement, and half involving the *ser/ estar* distinction.

clitic pronoun placement

This task consisted of 24 sentences, 12 sentences with clitics in pre-verbal position and 12 with post-verbal clitics. In Spanish, as described in Chapter 4, all the pronouns should be placed pre-verbally to be correct.

- 4 sentences involved **incorrect, Portuguese-like** position, i.e. post-verbal in simple, affirmative declarative sentences. Correct judgements here would mean acquisition of the target structure; incorrect judgement could mean either L1 or L3 negative transfer, as Portuguese resembles English here.

e.g. 40) Siempre compro los en el mercado

(I always buy them at the market)

- 8 involving **incorrect, un-Portuguese-like** position, i.e. post-verbal in "Wh"

questions, negative statements, subordinate clauses. Correct judgements here would mean acquisition of the target structure; incorrect judgement could mean L1 transfer.

e.g. 41) El policía no hizo me caso

(The police took no notice of me)

- 4 involving **correct, un-Portuguese-like** position, i.e. pre-verbal in simple, affirmative declarative clauses. Correct judgements here would mean acquisition of the target structure; incorrect judgement could mean either L1 or L3 transfer, as Portuguese resembles English here in requiring post-verbal pronouns in this grammatical context.

e.g. 42) Te veo mañana a las siete?

(Will I see you tomorrow at seven?)

- 8 involving **correct, Portuguese-like** position, i.e. pre-verbal in negative statements, "Wh" questions, and subordinate clauses. Correct judgements here would mean acquisition of the target structure; incorrect judgement could mean L1 transfer.

e.g. 43) Ella todavía no lo sabe.

(She still doesn't know about it)

In the two groups where the clitic would correctly be placed post-verbally in Portuguese, two sentences were in the present tense and two were in the past (one affirmative of each tense and one polar interrogative). In the two groups where the clitic would be placed pre-verbally in Portuguese as well, two sentences were in the present tense (one negative and one interrogative) and six were in the past (one negative, one interrogative, and four embedded sentence types: one relative clause, one reported speech sample one indirect question and one interrogative relative clause).

ser/estar distinction

This task consisted of 24 sentences, 6 groups of 4.

- 4 **Portuguese-like, correct** uses of *ser*, to describe permanent states. Correct judgements here would mean acquisition of the target structure (discounting positive L3 transfer as Spanish was acquired first); incorrect judgement could mean L1 transfer.

e.g. 44) Este niño no es muy inteligente

This child isn't very clever

- 8 **incorrect** uses of *ser*:

4 to describe permanent location, which would be **correct** in Portuguese.

Correct judgements here would mean acquisition of the target structure; incorrect judgement could mean either L3 transfer, or L1 as English does not make the distinction.

e.g. 45) ¿La Giralda es en Sevilla o en Granada?

(Is the Giralda in Sevilla or in Granada?)

4 to describe temporary states or positions, which would also be **incorrect** in Portuguese. Correct judgements here would almost certainly indicate acquisition of the target structure; incorrect judgement could mean L1 transfer, as English does not make the distinction.

e.g. 46) Hoy tu amiga es muy alegre

Your friend is very cheerful today

- 8 **correct** uses of *estar*:

4 to describe permanent location, which would be **incorrect** in Portuguese. Correct judgements here would mean acquisition of the target structure; incorrect judgement could mean either L3 negative transfer, as Portuguese differs from Spanish here, or L1 transfer, as English does not make the distinction.

e.g. 47) Nuestro hotel no está en el centro

(Our hotel isn't in the city centre)

4 to describe temporary states, which would also be **correct** in Portuguese. Correct judgements here would mean acquisition of the target structure; incorrect judgement could mean L1 transfer, as English does not make the distinction

e.g. 48) Tu madre está enfadada?

(Is your mother angry?)

- 4 **incorrect** uses of *estar* to describe permanent states; also **incorrect** in Portuguese. Correct judgements here would mean acquisition of the target structure; incorrect judgement could mean L1 transfer, as English does not make the distinction. However, in the last two cases I am reluctant to suggest that choice of marked *estar* as "default" verb should reflect transfer from

English.

e.g. 49) Esta mujer no está alemana.

This woman isn't German

In each of the two groups of sentences describing permanent states, there were two affirmative sentences, one negative, and one interrogative, all in the present tense. In both groups describing permanent location there was one affirmative sentence, one negative, and two interrogative, again all in the present tense. In each of the two groups of sentences describing temporary features, two of the cases involved mood (both present tense, one affirmative and one interrogative) and two involved temporary location (one past tense negative, one present tense affirmative). For a more detailed, sentence-by-sentence breakdown, see Appendix 6. The aim of this attempt at systematicity was to see if there was an order of difficulty or markedness.

7.3.3.2.4. General Remarks

Although for both languages the clitic placement judgement task and the *ser/ estar* task were constructed separately, they were mixed before being administered to the subjects, in an attempt to avoid making it obvious which structures were involved; it was hoped thus to assist my aim of tapping learners' intuitions rather than their analysed knowledge of rules. However, the original unmixed version was made available to the teachers concerned, for subsequent classroom feedback sessions.

The tasks were first administered to native speakers in order to check that my own intuitions, and the grammar-book explanations I had consulted (see Chapter 4), matched current usage. The Portuguese task was done by one native speaker of Portuguese living in Edinburgh and one living in Berlin¹⁰. It was also administered to a native speaker of Brazilian Portuguese, to discover whether her intuitions about differences existing between the two varieties matched grammar book descriptions. It was confirmed that in fact, the rules of Brazilian Portuguese regarding clitic placement are indeed closer to the rules of Spanish, although the rules about the *ser/estar* distinction appear to be identical across the two varieties. Therefore any data from learners studying Brazilian Portuguese would have to be analysed

¹⁰ It was planned to eventually administer it also to native speakers of Portuguese living in Portugal, in case the judgement of native-speakers living in this country has been affected by backlash interference; however, in the event, this did not prove feasible.

separately. The Spanish task was administered to two speakers of Castillian Spanish.

It was emphasised in the instructions (see Appendix 8) that the subjects should not try to grammatically analyse the sentences; rather they should give their first, instinctive response according to whether the sentence "feels right" or not. Also, they were told they should not go back and change a response if they had second thoughts. In this way, it was hoped to guide them towards using implicit rather than explicit knowledge.

It was decided to use a 5-point scale. A binary scale, where subjects are forced to commit themselves to a judgement of "correct" or "incorrect", creates the almost certainly false impression that learners have definite conceptions of accuracy on areas of language about which their grammar may well be quite indeterminate. Some other researchers prefer a scale with a greater range of possibilities (c.f. Chaudron, 1983), but it was felt that the possible confusion/ frustration occasioned to the subjects might outweigh the possible advantages in terms of greater subtlety in the data. Sorace (1996), who maintains that in general categorial acceptability scales are ineffective research tools in many respects, does say that scales which include more than 3 points are statistically more reliable. The format and instructions were as follows:

- Two ticks if you are sure it is correct.
- One tick if you think it is correct, but are not sure.
- Question mark (?) if you really do not know whether it is correct or not.
- One cross if you think it is incorrect but are not sure.
- Two crosses if you are sure it is incorrect

In addition, subjects were asked, where they judged the sentence to be incorrect, to underline the part which they believed to contain the error, and if possible, to correct it. This was to check that they were making such a judgement for the "right reasons". Subjects may perceive the task as a test of a different area of language from that which is actually intended (Sharwood Smith, 1986, 16-17). It is possible, for example, for a sentence containing an incorrectly placed clitic pronoun to be judged to be incorrect because the subject erroneously believes there to be a mistake in another part of the sentence, while accepting the incorrect clitic

placement.

To help avoid the risk of an "order effect", it was decided to provide **two** versions of both of the grammaticality judgement tasks and of the controlled elicitation tasks, in which the items appear in different orders. This meant, for example, that an item which appears at the beginning of the task in one version is likely to appear in the middle or towards the end in the other version. It was hoped this would control for potential extraneous variables like greater tiredness at the end of a task; improvement during the course of the task ("practice effect"); influence of the proximity of similar items; and (in the case of the judgement tasks) the effect of the **position** of the sentence, as it has been seen that, for example, a correct sentence is more likely to be judged correct if it follows an incorrect sentence than if it follows a correct one. These two versions of the test were given to random halves of each group.¹¹ Afterwards, for each test, the two versions were compared by T-test, comparing the mean scores for those subjects who took version A with the means of those who took version B, to check that they were really the same test; in no case was there a significant difference between the versions, so it seems reasonable to accept that changing the order did not alter the test.

7.3.3.3. Controlled elicitation tasks: Issues

If our aim is to examine performance as well as competence, the learners' ability to actively access their knowledge as well as the state of the knowledge itself, judgement tasks will not suffice. Controlled elicitation tasks are the only means of avoiding the phenomenon of "avoidance", always an option in free production tasks (as observed in the exploratory study): if a subject feels uncertain or insecure in a certain area, she can frequently avoid the problem by using another structure, or

¹¹ The tasks were first piloted (see Appendix 2 for pilot tasks) with similar groups of students the previous year, and changes and refinements were made (some on the basis of flaws spotted then, others refinements decided on independently). Some sentences were simplified, so that there would be as little extra material as possible to detract from the structures being tested. (Care being taken that enough context was still provided; for example, in the case of the existential verbs it was often necessary to provide further information to ensure that it was clear whether a permanent or temporary characteristic was being spoken of. A normally permanent characteristic like intelligence CAN be used with "estar" to denote a temporary change in behaviour, c.f. English "he's **being** nice, clever, selfish...") I observed during piloting that certain correct but slightly complicated constructions, or the use of vocabulary unknown to the students (which I had assumed they would know), could elicit judgements of "incorrect" where the sentence was in fact correct, or deflect the learner's attention from the real error in an incorrect sentence. The collation of these erroneous judgements helped me to

rephrasing or paraphrasing in some way. For example, in the case of clitic placement, the learner who feels unsure of the rules may prefer to repeat a full noun, or use a “full” object pronoun (as is common in Brazilian Portuguese) and thus avoid using pronouns altogether. Thus I deemed it necessary to include controlled production tasks, identical for each learner, which force her to “commit herself” on given structures.

The most controlled type of task of all is the imitation task; here the experimenter has complete control, the subject has no choice of structure or lexis, forcing her to deal with the specific item in hand. Swan (1987) argues convincingly that one can imitate an utterance in a foreign language without complete knowledge of the structure involved, even, possibly, without understanding the utterance; but on closer inspection this is a little simplistic. There has been much debate on the subject in the literature on research methodology. Munnich et al (1994) defend their use of the technique eloquently; they maintain that as long as the sentences are sufficiently long, i.e. too long to be held in short-term memory, then the task is “reconstructive”: the subject has to analyse them in order to reproduce them. Moreover, when given ungrammatical sentences, their subjects often corrected them rather than repeating verbatim, suggesting that such tasks could be an effective measure of knowledge of ungrammaticality. On the other hand, Bley-Vroman and Chaudron (1994) claim that learners may not be able to correctly produce a structure in an imitation task that they have used in free production; so there would appear to be some inconsistency here. Personally, I have chosen to use fairly traditional gap-filling-type grammar exercises instead, as implying almost the same “lack of choice”, while not actually providing the subject with the appropriate language.

7.3.3.4 Controlled production tasks: this study

These tasks, which can be found in Appendix 4, take the form of two traditional “sentence completion” and “fill-in-the-gaps” exercises. Like the grammaticality judgement tasks, these were adapted slightly on the basis of piloting the previous year.

- clitic placement: this task involved the insertion of given pronouns in the correct

eradicate such distractors from the final version.

position in the sentences provided. There are 11 sentences, containing 12 pronouns in total, of which 6 should be in pre-verbal position (i.e. Spanish-like)

e.g. 50) (o) Quem fez? (correct version: Quem o fez?)
(Who did it?)

and 6 should be in post-verbal position (i.e. English-like/non-Spanish-like).

e.g. 51) (me) Ele contou muitas coisas interessantes.
(correct version: Ele contou-me muitas coisas interessantes)
(He told me a lot of interesting things)

- ser/estar: this involved 9 sentences each containing a gap to complete with the appropriate verb. Of these sentences, 3 require **estar** to describe either temporary state or temporary location; in either case, **Spanish-like**.

e.g. 52) A cerveja _____ no frigorífico
é/ está

6 require **ser** :

3 to describe permanent location (**un-Spanish-like**)

e.g. 53) A sua casa _____ em Alfama, perto do castelo
é / está

3 to describe permanent states (**Spanish-like**)

e.g. 54) O Pedro _____ uma das pessoas mais simpáticas que eu conheço
é / está

Subjects were given a binary choice in each case, i.e. the verbs were already inflected for tense and person, so the choice of verb was the **only** choice that needed to be made. This was to make the task as clear as possible, and to avoid confounding their performance with other possible syntactic variables.

7.3.3.5 Questionnaires: Issues

7.3.3.5.1 Numbers

Lightbown (1984) points out the need for large groups of subjects in this type of experiment:

¹² In fact, one of these was eventually excluded in the final analysis, as it involved a compound verb form in a periphrastic tense, where the pronoun does come after the auxiliary verb, but before the main verb.

"the role of social psychological variables can only be assessed when it can be determined that they account for a substantial proportion of variance" (243)

However, I followed up one of her references (Genesee and Hamayan, 1980) to find that the experimenters had dealt with a group of 52 children; which I found reassuring, as my group is comparable in size.¹³

7.3.3.5.2 Construction.

When constructing Likert-style attitude questionnaires, it is necessary to exclude statements which are ambiguous, confusing or excessively long, or which are factual rather than attitudinal, or which are likely to be accepted or rejected by almost every subject. (c.f. Edwards, 1957; Triandis, 1971). This latter point is particularly relevant when looking at existing questionnaires. In this study, it was originally intended to measure ethnocentricity, "*anomie*" and attitudes to the target cultures; but the existing measures of ethnocentricity and "*anomie*", as used by researchers like Gardner and Lambert (1972) and Ake (1982) seemed unsuitable for use with the subjects in question. Many items seem too unsubtle. It is nigh on impossible to imagine a British university undergraduate who would unashamedly answer a straight "yes" to the following questions on the "ethnocentrism scale" quoted in Jakobovits (1970):

1. The worst danger to real Canadians during the last 50 years has come from foreign ideas and agitators.
4. Foreigners are all right in their place, but they carry it too far when they get familiar with us.

I felt that this type of item needed to be toned down considerably for my subjects, particularly as they are people who have specifically chosen to study foreign languages at university level; any negative attitudes they may have are likely to be felt and expressed in a rather subtler way. It was decided, therefore to concentrate on measuring attitude.

¹³ Moreover, I took comfort in Robson's (1993) reminder that the greater the sample size, the greater the chance of achieving statistically significant results, which leads him to conclude that "there is much to be said for keeping the sample small, so that only robust effects are going to be picked up" rather than obtaining statistical significance "at the expense of real life triviality" (352). Sorace (personal communication) counter-argues that with a small sample, the effects could all be random characteristics of a few individuals; however, I am confident that my sample is large enough to avoid such an accusation.

Then there is the question of the subject completing the questionnaire according to how she feels she ought to respond (either according to the researcher or her own conscience) rather than responding totally honestly. As Triandis (1971) points out, the questions are often too transparent; it is clear to the subject what the desired/desirable response is. Anonymity can help to avoid this problem, although not completely, as it does not hide the subject's answers from her own conscience!

7.3.3.5.3. Validity

The validity of an item refers to the question of whether it actually measures what it is intended to measure. Oppenheim (1966) tells us that this is the major difficulty with attitude tests; against what criteria do we validate our test? "It still remains difficult to be sure of reasonable validity even when we are dealing with factual questions, and when we deal with attitudinal questions the difficulties become almost insurmountable" (72-73). Sometimes, attitude questionnaires have been validated against membership of "criterion groups": political parties, churches, and the like; however, people have many different motives for joining such groups, and group membership is not necessarily a better reflection of inner attitudes than answers to a questionnaire. To give a relevant example, students may join the "Spanish Society" for purely social reasons, or as a way of further improving their language skills through purely instrumental motives, rather than necessarily out of any strong desire to participate in Spanish culture. There is, at present, no truly satisfactory way of ensuring that an attitude scale is valid.

7.3.3.5.4 Reliability

This term refers to consistency; if the measure were applied to the same subject after a time-lapse, would they give the same responses? However, as Oppenheim (op cit) points out, the underlying assumption here is that attitudes are stable, and somehow true; while in reality, attitudes (unlike facts) can vary according to mood. Indeed it would seem that even questions about apparently immutable facts like gender and birthplace can be answered differently on different occasions, cf. Schreiber (1976) cited in de Vaus (1991)! A common way of testing for reliability in standard testing

procedure is to measure the internal consistency of a set of questions by the use of split-half correlation. However, as Gardner (1985) points out, individuals may respond similarly to one **item** on separate occasions, yet may respond differently on a single occasion to two items both intended to measure the same attitude, as positive attitude to a people or a language is in itself a very general construct, made up of several strands. Factor analysis can help to tease out the underlying components.

In spite of these caveats, though, it would seem that reliability coefficients of .80 and higher are quite common with attitude questionnaires. Oppenheim also makes the point that a set of questions attempting to tap the same underlying attitude is more likely to be reliable than a single question, because by using sets, we "maximise the more stable components, while reducing the instability due to particular items, emphasis, mood changes and so on" (74) De Vaus (1991) likewise recommends the use of "multiple-item indicators" (p.55).

7.3.3.6. Questionnaires: this Study

The decision to measure attitudes to the target cultures followed on the puzzling result of the implicational scaling during the exploratory study, described in Chapter 6. It may be recalled that apparently some learners appeared to transfer more from L1 and others more from L2, and one hypothesised explanation was that this might be due to differences in motivation and attitudes to the target culture.

In addition to the problems outlined above, in 7.4.3.5.2, some of the questions appearing on attitude tests used by other researchers were more suitable for a **second** language situation than for the situation of **foreign** language learning in the U.K., so it was decided that a new test should be constructed, designed specifically for British university-level learners of Portuguese as a foreign language, bearing in mind Edwards' (1957) checklist of recommendations.

Firstly, a pilot questionnaire was drawn up, consisting of 50 statements about "Iberian Culture"; some of these statements were in fact adapted to the context from the existing questionnaires in the literature; as these were items which had all been previously validated, it seemed logical to at least try them out in my situation. (See Appendix 3) The bulk of the items were, however, provided by myself, based on opinions which I had heard voiced over the years by British people. This pilot

questionnaire was then given to 10 native speakers of English (university staff and post-graduate students), who were asked to judge whether each statement reflected a positive, negative or neutral attitude on the part of the utterer. They were also invited to give any comments which they thought were relevant about the wording and content of the statements. The aim was the elimination of any statement which appeared to be ambiguous; any statement was rejected about which there was more than a minimal amount of disagreement. For example, if even one judge gave an opposite judgement to the majority, - say, if there was one judgement of "negative" to nine judgements of "positive" - the statement was rejected; likewise, if more than two judges deemed the statement to be neutral or factual rather than attitudinal. It was hoped thus to achieve a degree of validity, some insurance that the finished questionnaire would be measuring what it was intended to measure.

The next step in "pruning" the questionnaire was to eliminate those statements which did not provide a range of responses; in other words, those with which there was almost unanimous agreement or disagreement. It was decided to administer it to the subjects themselves in its full form, and take the decision later about which items, if any, should be rejected; in other words, the questionnaire was effectively to be piloted even as it was being used, with statistical analyses of subjects' attitudes to be carried out after eliminating a number of their own responses, if necessary. In the event, each item was deemed to show a sufficient range of responses, so all were retained in the analysis. See Appendix 4 for the final version of the questionnaire.

As with the grammaticality judgements, it was decided to use a 5-point scale rather than one with a wider range of responses. The format and instructions were as follows:

The following statements are ones with which some people would agree and others would disagree. There are no right and wrong answers, simply different opinions.

Record your own reactions to them as follows:

If you strongly agree with the statement, circle "5"

If you agree, although not strongly, circle "4"

If you are not sure whether or not you agree with the opinion expressed, circle "3"

If you disagree, but not strongly, circle "2"

If you strongly disagree, circle "1".

middle-range score can be ambiguous, and cannot automatically be interpreted as signifying neutrality: it may mean the subject feels fairly neutral on many items, OR it may reflect a high level of inconsistency, with positive judgements on some items and negative judgements on others.

In addition it was decided to ask the subjects directly, at the end of the questionnaire, whether they generally held negative, indifferent, or positive attitudes towards Iberian culture, and also how their attitudes to Iberia compared with their attitudes to British culture. This was to ascertain whether there was a clear relationship between their professed attitudes and their attitudes as measured by the questionnaire.

For statistical analysis, the statements were to be divided into two sets: those which overtly compare Spain/Portugal with Britain, and those which merely make statements about Spain/ Portugal. Although other questionnaires which have been used previously seem to mix the two types, I felt that two rather different constructs were being tapped. A positive attitude to another culture does not *per se* preclude a positive attitude to one's own; it is possible to have a healthily positive attitude to both. A specific preference for the foreign culture, on the other hand seems to imply a certain dissatisfaction with one's own; a construct akin to, although not identical with "anomie"; whereas a preference for one's own culture over the foreign culture could suggest a tendency towards ethnocentrism. While it was felt that "anomie" and "ethnocentrism" as defined by psychologists might be rather extreme traits to expect to find to a noticeable degree among British university students of foreign languages in the 1990's, it did seem reasonable to expect to be able to tap such preferences, in order to incorporate them in my analysis.

It was originally intended to administer the questionnaires in Portuguese for pedagogical reasons: in order to subsequently serve as material for a conversation class . However, there is research evidence (c.f. Hermann, 1988) that some subjects actually appear to show more positive attitudes when answering such questionnaires in a foreign language; thus it was decided that the questionnaire should be administered in English first, collected, and then the Portuguese translation could be handed out by the class teacher, for subsequent discussion.

7.3.3.7 "Indirect Attitude Testing": Issues

Some researchers recently have preferred to test attitudes in what is termed the "indirect" way. Oller et al (1977) maintained that indirect scales seemed more informative than direct questionnaires, as being less prone to the problem of subjects' answering as expected/desired. They, and Svanes (1988), used versions of Osgood's (1957) Semantic Differential tests, in which subjects have to rate their fellow countrymen and the people of the target culture along continua between two opposing character traits, or rate them on a 1-5 scale on given traits. This kind of test also has problems; subjects who already perceive attitude tests as stereotyping may well perceive this judgement of people on one- word trait labels as even more blatant examples of cultural stereotyping; and yet the data from such students is vital, as their hostile reaction to racial stereotyping suggests they may logically be the very ones who have the most positive attitudes with regard to other cultures. Ake (1982) describes such a problem: in one session, at the beginning of a college Spanish course, about one third of all subjects refused to respond, by not returning the questionnaire or by walking out of the room; some protested verbally, that such a test was "designed to elicit prejudice and bigotry" and that "all stereotypes are bad and invalid" (49) As will be seen in Chapter 8, this problem did also arise with a number of my subjects, but not on a comparable scale.

7.3.3.8 Indirect Attitude Testing: This study - the Semantic Differential Scale

Pairs of antonyms were elicited by asking English native speakers to give opinions about sets of three nationalities, using the format "x and y are ----- while z are -----". This technique is described by Oppenheim (1966) as a means of constructing repertory grids; I considered it an equally suitable way of constructing a Semantic Differential Scale. The scale so constructed (see Appendix 3) was first tested with 10 postgraduate students, who were asked to build up a picture of their "ideal person" using the antonyms provided. Subsequently, those attributes were eliminated about which there was disagreement, for example on the "romantic---practical" scale some preferred one extreme, some the other, while others preferred a balance of the two traits. The continua which were retained were those about which there was virtual unanimity, for example "humourless-----witty".

The resulting scale was then presented to the learners who were asked to use it to rate Portuguese people, Spanish people, and British people, as well as the ideal person. See Appendix 4 for the final version of the scale.

7.3.3.9 General Language and Motivation Questionnaire

As outlined in 7.4.1, subjects were given a questionnaire asking them for very brief details about their studies of Portuguese: which variety they were learning (whether Brazilian or European), how long they had studied it, if they enjoyed it, and to give a self-rating as to their own proficiency. In addition, they were asked for details of other languages spoken, and of motivation. For the latter they were asked to tick off possible reasons for learning Portuguese, of which 4 would generally be considered to be integrative:

“Interest in Portuguese/Brazilian culture”

“to begin to think and behave as Portuguese/Brazilian people do”

“to establish better relations with Portuguese/Brazilian people”

“to be able to get a job in Portugal/Brazil”

and 4 would be considered instrumental :

“interest in Portuguese language”

“to help get a better job at home”

“to increase my repertoire of foreign languages”

“because I needed another subject to complete my degree”

Some of these were adapted from other studies (Gardner and Lambert,1972; Ake,1982; Svanes,1988), others were provided by myself.

I later reassessed one of the so-called “instrumental” reasons, “interest in the Portuguese language”, as reflecting more a cognitive or intrinsic kind of motivation. However, to exclude it would have made analysis much more complicated as the two kinds of motivation would have to be measured by different scales if there were not the same number of statements for each; I therefore decided to maintain this reason, as it does seem intuitively reasonable to oppose integrative orientation against a broadly non-integrative type of orientation, which might include cognitive dimensions as well as purely instrumental ones.

See Appendix 5 for the questionnaire in full.

Task type	Contents of task	Aims of task
Portuguese judgement tasks	<ul style="list-style-type: none"> - 24 sentences (12 correct, 12 incorrect) representing clitic pronouns - 28 sentences (14 correct, 14 incorrect) representing <i>ser/estar</i> 	To examine subjects' underlying competence / knowledge of the two structures, in terms of influence from Spanish L2 and English L1.
Spanish judgement tasks	<ul style="list-style-type: none"> - 24 sentences (12 correct, 12 incorrect) representing clitic pronouns - 24 sentences (12 correct, 12 incorrect) representing <i>ser/estar</i> 	To examine subjects underlying competence / knowledge of the two structures, in terms of influence from Portuguese L2 and English L1, and to compare this with their knowledge of the equivalent structures in Portuguese.
Portuguese controlled elicitation task: clitics	- 11 sentences requiring insertion of clitic pronoun provided, in appropriate position	To examine subjects' control over their knowledge of the structure, in terms of L2 and L1 influence, and to compare with their underlying knowledge as exemplified in the judgement tasks
Portuguese controlled elicitation task: <i>ser/estar</i>	- 9 sentences with gaps, requiring insertion of appropriate verb according to meaning in context.	To examine subjects' control over their knowledge of the structure, in terms of L2 and L1 influence, and to compare with their underlying knowledge as exemplified in the judgement tasks
Attitude Questionnaire	- 38 statements, 22 reflecting positive attitude and 16 reflecting negative attitude.	To examine subjects' attitudes towards "Iberian" people and culture.
Semantic Differential task	- 21 pairs of antonyms, to rate Spanish, Portuguese, and British people, and the "ideal person"	To determine whether subjects preferred "Iberian" or British people.
Motivation Questionnaire	- list of 8 reasons for studying Portuguese	To determine whether subjects were integratively or instrumentally oriented.

Table 12: summarising tasks used in the study

7.4 Analysis

7.4.1. Scaling

I elected to repeat the scaling as carried out in the exploratory study, not because I necessarily expected to find an implicational hierarchy, but as a useful way of displaying the data; after all, this was how the pattern of L1 v L2 transfer was discovered in the pilot study data.

7.4.2 Measurement of Transfer

I calculated the following sub-totals for the different sections of the two types of task and the two features under investigation:

Portuguese Grammaticality Judgement Task

Clitics

Total clitics 1 : Items 1-6, where clitic is pre-verbal in position, Spanish-like and correct

(and judgement of "correct" might suggest positive L2 transfer)

Total clitics 2: Items 7-12, where clitic is pre-verbal, Spanish-like and incorrectly placed

(and judgement of "correct" might suggest negative L2 transfer)

Total clitics 3: Items 13-18, where clitic is post-verbal, English-like and correctly placed

(and judgement of "correct" might suggest positive L1 transfer)

Total clitics 4: Items 19-24, where clitic is post-verbal, English-like and incorrectly placed

(and judgement of "correct" might suggest negative L1 transfer)

Existential verbs

Total *ser/estar* 1 - Items 1-6, Spanish-like and incorrect, which if judged "correct" might suggest negative L2 transfer.

Total *ser/estar* 2 -Items 7-14, non-Spanish-like and incorrect, which if judged "correct" might possibly suggest negative L1 transfer.

Total *ser/estar* 3 - Items 15-20, non-Spanish-like and correct, which if judged "correct" might suggest positive L1 transfer.

Total *ser/estar* 4 -Items 21-28, Spanish-like and correct, which if judged "correct" might suggest positive L2 transfer.

Totals 2 and 4 for *ser/estar* were also, broken down into two subcategories, for each verb, to see if there was a difference between judgements regarding each of them.

These totals were converted to z scores, to make them all equivalent, because there was not necessarily the same number of sentences in each group.

There is of course a major caveat regarding the measurement of positive transfer:

those instances of correct judgements which might appear attributable to positive transfer, might also be attributable to acquisition of the target structure. Equally, in some cases, instances compatible with negative transfer might also be attributable to overgeneralisation of the target structure.¹⁴

Production Tasks

Clitics

Total test 3: English-like for sentences 1-3, 5 and 6 which provide contexts where the clitic should be correctly placed post-verbally, resembling English. Initial examination of Item 4 showed that it had presented more difficulty than any other item, because it involves a present perfect sentence, in which the clitic is placed after the auxiliary but before the participle, thus resembling neither English or Spanish. Therefore, it was eventually discarded for the statistical analysis,

Total test 3: Spanish-like for sentences 7-12, which provide contexts where the clitic should be correctly placed pre-verbally, resembling Spanish.

Existential verbs

Total test 4: non-Spanish-like for sentences 1-3, requiring *ser* in a context which would require *estar* in Spanish.

Total test 4: Spanish-like for sentences 4-9, requiring *ser/estar* in contexts which would require the same verb in Spanish.

The latter was also broken down into two components (Spanish-like *ser* and Spanish-like *estar*) for some parts of the analysis.

It must seem absurd to speak in terms of "possible Spanish > Portuguese transfer" for those learners who have no previous knowledge of Spanish, and therefore neither the opportunity nor the risk of transferring from Spanish. However, it is necessary to do so in order to determine whether those erroneous judgements by the experimental group which at first sight would appear to be attributable to transfer can actually be explained in these terms, or whether we have to opt for an alternative, intralingual explanation. If the differences between the two groups' performance is not significant, then explanation of that performance in terms of transfer should be discounted.

¹⁴ How we interpret the data depends on whether we believe that the "initial state" of the L3 consists of the L1 grammar, the L2 grammar (given the degree of relatedness of the two languages involved), even perhaps a mixture of the two; or whether these learners start "from scratch" (see Chapter 1).

These scores were then compared using ANOVA significance tests, involving various combinations of variables. In total there were four nominal independent variables: two between-subject variables:- previous Spanish knowledge (2 conditions) and level of Portuguese (3 conditions: beginners, intermediate and advanced), and two within-subject variables:- type of structure (2 conditions: syntactic or semantic) and type of task (judgement or production). The dependent variables were amount of transfer, operationalised as z scores (as described above), and for the purpose of analysis, we considered two more factors, each with two conditions: source of transfer (L1 or L2) and type of transfer (positive or negative).

Details of the type of ANOVA used in each case are given in Chapter 9. Separate ANOVAs were performed for each structure, as the learners of Brazilian Portuguese had to be excluded from analyses involving clitic pronouns. The alpha level was set at .05 for all analyses, as recommended by De Vaus (1991) for small sample sizes. Tukey tests were used for pair-wise post-hoc comparison of means, where differences were significant.

Hypothesis 1 – Spanish-Portuguese transfer: the mean z scores for the experimental group (previous Spanish - Group 1) and the control group (no previous Spanish - Group 2) were compared for each set of items, and the scores for each set of items were compared within each group, to ascertain whether we could reject the null hypothesis and conclude that learners of Portuguese with previous Spanish knowledge are influenced by their L2, and if so, if they are more influenced by it than English (their L1).

Hypothesis 2 - Variability

The mean z scores for the both sections of the production tasks were compared with those for the corresponding sections of the grammaticality judgement task, to ascertain whether the hypothesis that there would be more L2-L3 transfer involved in the way language knowledge is represented than in the way it is used in controlled production could be accepted.

Hypothesis 3 - Semantic vs. syntactic transfer:

The mean z scores for groups of items testing the existential verb structure (difference in semantic field), were compared with those testing the clitics to

ascertain whether we could conclude that these subjects do transfer more from L2 when the difference between Spanish and Portuguese is semantic than when the difference is purely syntactic.

Hypothesis 4 – Level

The mean z scores for the Spanish speakers at the three different levels of proficiency were compared to ascertain whether we should accept the null hypothesis that increased proficiency has no effect on the amount of transfer taking place.

Hypothesis 8 - Directionality of transfer

As with the Portuguese tasks, I calculated the following sub-totals for the different sections of the Spanish grammaticality judgement task and the two features under investigation:

Clitics

Total Span. clitics 1 : Items 1-8, where clitic is post-verbal in position, un-Portuguese-like and incorrectly placed (and judgement of "correct" might suggest negative L1 transfer; accurate judgement would almost certainly indicate acquisition of the target structure)

Total Span.clitics 2: Items 9-12, where clitic is post-verbal, Portuguese-like and incorrectly placed (and judgement of "correct" might suggest negative L3 transfer OR negative L1 transfer - given that English and Portuguese are identical here; accurate judgement would almost certainly indicate acquisition of the target structure)

Total Spanish clitics 3: Items 13-20, where clitic is pre-verbal, Portuguese-like and correctly placed (and judgement of "correct" would almost certainly mean acquisition of the target structure rather than positive L3 transfer, given that Spanish was acquired first; incorrect judgement would probably indicate negative L1 transfer)

Total Spanish clitics 4: Items 21-24, where clitic is pre-verbal, non-Portuguese-like and correctly placed (and judgement of "correct" would suggest acquisition of the target structure; wrong judgement might mean negative L1 transfer or negative L3 transfer)

Note There is no sentence-type that could reflect positive L1 transfer here, as Spanish always requires the clitic in pre-verbal position.

Existential verbs

Total Span. *ser/estar* 1 - Items 1-4, (for *ser*), 9-12 (for *estar*), Portuguese-like and correct (and judgement of "correct" would almost certainly mean acquisition of the target structure rather than positive L3 transfer, given that Spanish was acquired first. Incorrect judgements might imply L1 transfer as exemplified in inability to discriminate between the two verbs)

Total Span. *ser/estar* 2 - Items 5-8, non-Portuguese-like and correct, (i.e. use of *estar* for permanent location) which if judged "correct" would suggest acquisition of the target rule. Incorrect rejection could imply L3 transfer.

Total Span. *ser/estar* 3 - Items 13-16, (for *ser*) and 21-24 (for *estar*) non-Portuguese-like and incorrect, which if judged "correct" might suggest negative L1 transfer, i.e. transfer of the English lack of differentiation. Accurate judgement would almost certainly indicate acquisition of the structure.

Total Spanish *ser/estar* 4 - Items 17-20, Portuguese-like and incorrect (use of *ser* for permanent location), which if judged "correct" might suggest negative L3 transfer (or possibly L1 negative transfer of the lack of distinction in English); accurate judgement would almost certainly indicate acquisition of the structure.

Again, given that English does not have this distinction, it is not possible to talk in terms of Positive L1 transfer here.

As before, these totals were converted to z scores, for standardisation purposes, because there were not necessarily the same number of sentences in each group. A three-way repeated measures ANOVA was applied, with three independent variables: Language (2 conditions - Spanish and Portuguese), language feature (2 conditions - clitics and *ser/estar*) and type of transfer (2 conditions - positive and negative). The dependent variables were L2 and L3 transfer. The mean z scores on the Portuguese judgement task compatible with negative L2 transfer were compared with those on the Spanish judgement task that might indicate negative L3 transfer to ascertain whether the null hypothesis could be rejected, and it could be concluded that the influence between the two languages was bidirectional, at least for these subjects and these structures.

7.4.3. Effect of Attitudes and Personality factors on Transfer (to test Hypotheses 5-7)

The coding scheme for the attitude questionnaires was as follows:

- 5 for "strongly agree" to a positive statement or "strongly disagree" to a negative statement
- 4 for "agree" to a positive statement or "disagree" to a negative statement
- 3 for "don't know"
- 2 for "disagree" to a positive statement or "agree" to a negative statement
- 1 for "strongly disagree" to a positive statement or "strongly agree" to a negative statement.

As described in Section 7.4.3.6, the questionnaire, although presented to the subjects as unitary, in fact constitutes two separate ones tapping two slightly different constructs: **attitude** towards Iberian culture, and **preference** for Iberian culture. Factor analysis was carried out to attempt to determine more specifically what constructs underlie these attitudes and preferences.

The intention was for the factor analysis to be executed twice, on the two separate sections, but the two were eventually conflated, for reasons described in Chapter 10.

Hypothesis 5 - Transfer and attitude

A multiple regression analysis was performed, to examine the relationship between the dependent variables, operationalised as the z scores on the subsections of the Portuguese tasks, and the independent variables, the factors making up attitudes towards Iberian culture.

A significant positive correlation between the z scores measuring possible L2-L3 transfer and some or all of the factors underlying positive attitudes towards, or preference for, the target cultures would suggest that we could accept H₁, and conclude that those of our subjects who have a positive attitude (either generally or as related to the factors with which there was a significant association) to Iberian culture, or who prefer Iberian culture to British, will transfer more from L2 than from L1. A significant negative correlation with the factors underlying negative attitudes would have a similar meaning.

A significant positive correlation between the z scores measuring possible L1-L3 transfer and some or all of the factors underlying a negative attitude to the target cultures, would suggest that we could accept H₂, and conclude that those of our subjects who have a more negative attitude towards Iberian culture, or who prefer British culture to Iberian, will transfer more from L1 than from L2. A significant negative correlation with the factors underlying positive attitudes would have a similar meaning.

Hypothesis 6 - Differential transfer and attitude

If the implicational scaling applied to the judgement task had produced similar results to those of the exploratory study regarding clitic pronoun placement, (see Section 6), I would have divided the subjects into 3 groups accordingly: Group 1 (non-transfer group), Group 2 (L2-L3 transfer group), and Group 3 (L1-L3 transfer group), thus converting them into a **nominal** scale variable with three conditions; I would then have performed a two-way ANOVA comparing the scores on the various factors underlying attitude for the 3 groups. However, this test could not be performed, as the implicational scale did not produce a clear division on this occasion.

Hypothesis 7 - Type of motivation and transfer

Using the results of the "general questionnaire", I divided the subjects into 3 groups, those professing a more integrative orientation (Group A) and those professing a more instrumental -cognitive orientation (Group B) and those evenly balanced between the two (Group C). This involved a nominal independent variable with three conditions (motivation-type groups). I then performed an ANOVA, comparing the mean z scores on the linguistic tasks for all three groups. The comparison was made within-groups, to ascertain whether we could accept H_{1A} and conclude that our integratively oriented students would transfer more from the L2 than from the L1, and whether we could accept H_{2A} and conclude that our instrumentally oriented students would transfer more from the L1 than from the L2. The comparison was also made between-groups, to ascertain whether we could accept H_{1B} and conclude that our integratively motivated students transfer more from L2 than do

instrumentally motivated students, and whether we could accept H_{2B} and conclude that our instrumentally motivated students transfer more from L1 than do integratively motivated students.

8. RESULTS: PRELIMINARY ANALYSIS

In this chapter, I will present findings for the Portuguese judgement tasks and the production tasks, in two ways: firstly, for each task, I will describe the implicational scale that was carried out, for both language features. Only the data for the experimental group was subjected to this analysis. I will then go on to outline the accuracy order for each sentence-type involved with each feature; in the case of the judgement tasks, this analysis was applied to both experimental and control groups, for the purpose of comparison. In all cases, it was conducted with beginners only. The purpose of both of these analyses is to look for an acquisition order for these structures, as in the exploratory study (see Chapter 6); to see whether markedness is a consideration, for example¹. The other purpose of the implicational scale was to see if the subjects divided into groups, as described in 7.5.

8.1 Judgement Tasks

8.1.1 Implicational Scale

As in the pilot study, the data were analysed using the technique of implicational scaling as outlined in Section 6.3.1.1. The results for the judgement tasks (beginners only) are as follows:

8.1.2.1 Existential verbs

For *ser/estar*, the sentences which could have been judged correctly on the basis of positive transfer from Spanish formed a block at the top of the scale: they were consistently the sentences most often judged appropriately, with one exception in the form of an incorrect sentence containing *estar* which appeared in the middle of the block (this was an interrogative sentence combining *estar* with profession).

On the other hand, the incorrect sentences on which an inappropriate judgement could reflect negative transfer from Spanish (i.e. incorrect use of *estar* for permanent location) were in fact those sentences least often judged appropriately. Again there was one exception here: the sentence least often judged appropriately of all was an incorrect use of *ser* for temporary position. Appropriate rejections of

¹ Ellis' (1990) reminder that accuracy order does not necessarily mirror acquisition order should be

misuse of *ser* were more likely where it was used for a temporary characteristic than when used for temporary location; the latter resulting perhaps from a temptation to over-generalise, from the "new" (to these learners) use of *ser* for permanent location, to accepting it for all uses of location. Appropriate rejections of misused *estar* for permanent features were more likely when used for profession or nationality than for personality characteristics. Perhaps the former features seem more immutable; after all, personality traits can on occasion be used in combination with *estar* to give a sense of temporary aberration, as it were, equivalent to the English use of *be* in the present progressive form: "you're being silly", "he's being nice today". I did attempt to provide enough context in the sentences to avoid this interpretation; however, it is just possible that some of these incorrect judgements resulted from misinterpretation.

When the *ser/estar* scale was subjected to statistical analysis, the coefficient of reproducibility (C_{rep}), the statistic which tells us how easily we can predict a learner's performance on the basis of their position on the matrix, is .814, which means that the scale cannot be considered "valid". Conventionally, the value needs to exceed .90. The coefficient of scalability is only .237, which indicates low scalability. We cannot claim that there is a true scale in the data (see Hatch and Lazaraton, 1991, p.210-212), and here the results differ from those for the equivalent task in the pilot study (see 6.3.2.1). One may speculate as to the reasons for this difference; it could be the lesser degree of homogeneity in this group, in that they are drawn from four universities rather than only one.

8.1.2.2 Clitic pronouns

The most striking feature of the clitic scale is that almost all of the correct sentences were judged more accurately than almost all of the incorrect ones. There does not appear to be the same tendency as in the *ser/estar* judgements for Spanish-like correct sentences to be judged more accurately than the others; here, Spanish-like and English-like are in alternation. What, unfortunately, did not occur was the pattern I had expected on the basis of the exploratory study: the neat division into

borne in mind, however.

three groups which I had hoped would offer a way to differentiate between L3 acquisition and L1 transfer (see 6.3.1.1). I was obliged therefore to "write off" this idea, as a chance finding, rather than as a potentially generalisable tendency, especially given that the exploratory task contained altogether only 5 sentences with clitics.

When the clitic pronoun scale was subjected to statistical analysis, the C_{rep} was .778, which means that the scale cannot be considered "valid". The coefficient of scalability is only .186, even lower for the *ser/estar* scale; so again we cannot claim that there is a true scale in the data. Here the results resemble those of the exploratory study.

With both implicational scales, fairly consistently, appropriate judgements of CORRECT sentences were overwhelmingly more common than appropriate judgements of incorrect sentences. In other words there was a greater tendency to accept than to reject. This is usual with beginners - it ties in with the consensus view that learners acquire the ability to recognise grammaticality before they are able to recognise ungrammaticality. Moreover, bearing in mind that all of these learners are to some extent multilingual, i.e. Portuguese is at least their third language (second foreign language) and in some cases their fourth or fifth, this seems to give some support to Zobl's (1993) claim that multilinguals are less conservative in forming grammars than "unilinguals" - of course we would have to compare with data from learners for whom Portuguese was only a second language, to ascertain whether our subjects were less conservative, to be able to draw any conclusions on this point.

This tendency among beginners to accept sentences is likely to be reinforced by the nature of the rules of clitic placement in Portuguese. These learners are coming from two grammars (i.e. English and Spanish) where in most cases, certainly with tensed verbs in Spanish and with unmarked information structure in English, the pronoun always occupies the same position, to a grammar (i.e. Portuguese) where they can occur in either position. It is true that, as described in Chapter 4, the rules are rather rigid, at least in European Portuguese; and the learners will have been taught these rules already. Whether this formal instruction is taken up and translated into accurate judgements or production is another matter, however; clearly in many

cases it is not. Aside from explicit grammar teaching, the input they have received will presumably have included myriad examples of **both** orders, used in an apparently random way. In other words, it would appear that some learners are prepared to accept either word order, to apply a "broader" grammar than that which is actually allowed; they are not yet able to apply the choice available in Portuguese in a sufficiently systematic way. Rather, some of these learners may be operating a general "put the pronoun anywhere" strategy – a point mentioned by one of their teachers (see Appendix 7).

8.1.2 Accuracy Order

8.1.2.1 Clitics

Rule for position of clitic, with percentage of correct judgements.	Whether rule resembles Spanish or English.	Markedness Position	Markedness Clause type
Negative clause; pre-verbal (79.7% correct judgements)	Spanish	marked	"inter."
Affirmative declarative past tense; post-verbal (77.3%)	English	unmarked	unmarked
Relative clause; pre-verbal (67.2%)	Spanish	marked	marked
Polar question past; post-verbal (65.6% correct)	English	unmarked	"inter"
"Wh" interrogative; pre-verbal (65.6%)	Spanish	"marked	"inter."
Embedded question; pre-verbal (65.6%)	Spanish	marked	marked
Indirect speech; pre-verbal (64.1%)	Spanish	marked	marked
Post-adverbial; pre-verbal (62.5%)	Spanish	marked	unmarked
Affirmative declarative sentence, present; post-verbal (61.7% correct)	English	unmarked	unmarked
Polar question, present; post-verbal 42.2%	English	unmarked	"inter"

Table 13: the order of frequency in which the rules of Portuguese clitic pronoun syntax were applied correctly in grammaticality judgements, and relating this to cross-linguistic influence and markedness.

As in the exploratory study, some of the rules for Portuguese clitic pronoun syntax appeared to be applied more consistently correctly than others; there again seemed to be an order of difficulty.

I looked at contexts examined in the judgement task, ranging them in order from "most frequently judged correctly", to "least frequently judged correctly", to consider the respective roles played by the factors of "markedness" and transfer in producing this order. The results are displayed in Table 13.

For a discussion of "markedness" vis-à-vis clitic pronouns in Portuguese, see Section 4.2.2; to summarise, it appeared that the pre-verbal position can be considered "marked" vis-à-vis post-verbal, and that the contexts in which it appears can be considered marked vis-à-vis the context for post-verbal clitics (i.e. declarative, affirmative sentences, and polar questions, from which they are syntactically indistinguishable).

It appeared from our analysis that, as with the exploratory study, the rule which resembles English was applied correctly less often than the rule which resembles Spanish, even though the former involves the unmarked position of the pronoun and the unmarked clause type. However, when these sentence-types (affirmative declarative and polar question) were broken down according to tense used (i.e. past tense and present tense) and examined separately, this was in fact only the case when the verb was in the present tense; correct judgements were notably more frequent when the verb was in the past tense². The present tense is often considered unmarked vis-à-vis the past, but in fact the past tense is used more frequently than the present, so perhaps this frequency of use criterion is paramount; i.e. learners are more used to hearing/seeing past tense sentences and therefore are more comfortable with them; perhaps recognition is aided.

In the pilot study, we concluded that the notion of "psychotypological distance" over-rides that of "markedness"; on this occasion, it is less clear-cut. It is still true that the very highest level of accuracy occurs with a sentence type where the clitic is

² The exploratory study contained insufficient sentences to be able to make a comparison.

in a "marked" Spanish-like position, and the 2 lowest levels of accuracy occur with sentence types where the pronoun is in an "unmarked" English-like position - but given the more "messy" nature of the data we can only talk of tendencies rather than definite findings.

8.1.2.2 *ser/estar*

Table 13 shows the order of accuracy for this structure. The sentences which they were least able to judge correctly were those which resembled Spanish but were incorrect in Portuguese, i.e. using "estar" for permanent location. Those which they were consistently most able to judge correctly were those which resembled Spanish and were correct in Portuguese, i.e. using "estar" for temporary situation (mood or

Sentence type	% of correct judgements	positive transfer reflected in correct judgements	negative transfer reflected in incorrect judgements
correct <i>estar</i> ; temporary situation	96.1	Spanish	English?
correct <i>ser</i> ; characteristic; present	95.8	Spanish	??
correct <i>ser</i> ; characteristic; past	93.75	Spanish	??
incorrect <i>estar</i> ; characteristic; past	78.1	Spanish	English?
correct <i>ser</i> ; permanent location; present	73.9	English??	Spanish
incorrect <i>estar</i> ; characteristic; present	69.8	Spanish	English?
correct <i>ser</i> ; permanent location; past	64.6	English??	Spanish
incorrect <i>ser</i> ; temporary situation	50.8	Spanish	English??
incorrect <i>estar</i> ; permanent location; past	34.4	English??	Spanish

Table 14: the order of frequency in which the rules of Portuguese existential verbs were applied correctly in grammaticality judgements, and relating this to cross-linguistic influence.

location) followed by "ser" for permanent characteristics. Correct but un-Spanish-like sentences were intermediate on this scale, suggesting that, where Portuguese differs

from Spanish, the subjects were more able to recognise correctness than to spot incorrectness.

8.1.3 Non- previous-Spanish speakers data (the control group)

8.1.3 Accuracy order

8.1.3.1 Clitics

Here we have a very different order than for the experimental group (see Table 14). Without exception, the structures which have a word order resembling English are judged with a greater degree of accuracy than where the order resembles Spanish.

Rule for position of clitic, with percentage of correct judgements.	Whether rule resembles Spanish or English	Markedness Position	Markedness Clause type
Affirmative declarative past tense; post-verbal (70.45%)	English	unmarked	unmarked
Polar question, present; post-verbal 68.18%	English	unmarked	"inter"
Affirmative declarative sentence, present; post-verbal (65.9% correct)	English	unmarked	unmarked
Polar question past; post-verbal (63.63% correct)	English	unmarked	"inter"
Relative clause; pre-verbal (59.09%)	Spanish	marked	marked
Embedded question; pre-verbal (59.09%)	Spanish	marked	marked
Negative clause; pre-verbal (59.09% correct judgements)	Spanish	marked	"inter."
Indirect speech; pre-verbal (50%)	Spanish	marked	marked
Post-adverbial; pre-verbal (45.45%)	Spanish	marked	unmarked
"Wh" interrogative; pre-verbal (45.6%)	Spanish	"marked	"inter."

Table 15: the order of frequency in which the rules of Portuguese clitic pronoun syntax were applied correctly in grammaticality judgements by non-Spanish speakers, and relating this to cross-linguistic influence and markedness.

Bearing in mind that these students will have received the same kind of instruction as those in the experimental group from the same university, this pattern clearly suggests a facilitating effect of English L1, where Portuguese order resembles

English, probably reinforced by markedness considerations: where the L2 allows two word orders, then where the L1-like order represents the unmarked option in the L2, the learners prefer it over the marked option. Whether this effect is significant or not will be revealed in the following chapter³.

Here we cannot compare with the exploratory study, as the control group in that study had not been asked to attempt the clitic pronoun section of the task, because of their low level.

8.1.3.2 Existential verbs

Sentence type	% of correct judgements	rule resembles Spanish?
correct <i>ser</i> ; permanent location; present	96.96%	no
correct <i>ser</i> ; characteristic; present	96.96%	yes
correct <i>ser</i> ; characteristic; past	90.9%	yes
correct <i>estar</i> ; temporary situation	88.63%	yes
correct <i>ser</i> ; permanent location; past	87.87%	no
incorrect <i>estar</i> ; characteristic; past	63.63%	yes
incorrect <i>estar</i> ; permanent location; present	57.57%	no
incorrect <i>estar</i> ; characteristic; present	69.8	yes
incorrect <i>ser</i> ; temporary situation	38.63%	yes
incorrect <i>estar</i> ; permanent location; past	33.3%	no

Table 16: the order of frequency in which the rules of Portuguese existential verbs were applied correctly in grammaticality judgements by non-Spanish speakers.

The order of accuracy for the control group is displayed in Table 16. The main differences here between the control and the experimental groups are:

³ This also echoes Jansen's Alternation Hypothesis (see Section 2.4.2.6)

- The fact that correct judgements of correct use of *ser* for permanent location (un-Spanish-like use) are far higher for this group (96.96% for present, 87.87% for past) than for the Spanish-speakers (73.9% for present, 64.6 % for past), and
- the lower level of correct judgements where *estar* is used correctly for temporary situation (Spanish-like rule) (88.63% as opposed to 96.1%). Results in the exploratory study were similar (see 6.3.2.3)

Tables 17 and 18 below show the results in percentages for both the experimental and control groups, for both judgement tasks, divided as to whether Spanish knowledge would be likely to help or impede correct judgements.

	Subjects with previous Spanish knowledge	Subjects with no previous Spanish knowledge
Contexts where Spanish would help make correct judgements	67.4%	53.03%
Contexts where Spanish might lead to incorrect judgements	64.3%	67.42%

Table 17: percentage of correct judgements on clitic pronoun task for both groups, indicating where knowledge of Spanish would help subjects to judge correctly.

	Subjects with previous Spanish knowledge	Subjects with no previous Spanish knowledge
Contexts where Spanish would help make correct judgements	78.51%	68.18%
Contexts where Spanish might lead to incorrect judgements	52.34%	68.93%

Table 18: percentage of correct judgements on *ser/estar* task for both groups, indicating where knowledge of Spanish would help subjects to judge correctly.

It is clear from both tables that the previous Spanish group make consistently more correct judgements where Spanish would be likely to help, and consistently fewer correct judgements where Spanish would be likely to cause error. Whether or not these differences are significant will be examined in the next chapter.

8.2 Production Tasks

8.2.1 Implicational scale

8.2.1.1 – Clitics

The C_{rep} is .80, which means that the scale cannot be considered "valid". The coefficient of scalability is only .29, so again, as with the judgement task, we cannot claim that there is a true scale in the data.

8.2.1.2 Existential Verbs

The C_{rep} is .96, which means that the scale can be considered "valid". The coefficient of scalability is .76, so this time we can claim that there is a true scale in the data; given the accuracy order, we can maintain that students of Portuguese with Spanish as a second language acquire the uses of *ser* and *estar* where the rule resembles Spanish before they acquire the uses where the rule differs from Spanish. **It should be recalled, however, that this is true only for the elicitation task.** It could be that the subjects recognised the grammatical focus of this task, and made more conscious recourse to metalingual knowledge, resulting in a more consistent application of the rules.

No comparison can be made with the exploratory study, as there was no production task for this structure.

8.2.2 Accuracy Order

8.2.2.1 – Clitics

Table 19 shows the order in which the clitic pronouns were produced correctly, according to context of occurrence. Some points are worth noting here. Firstly, the lowest level of accuracy was for the compound tense, the present perfect; here we have an instance of a pronoun in marked position, but where neither the L1 nor the L2 could have helped the subjects produce the correct answer.⁴ Secondly, as with the judgement tasks, where there are two sentences of a given type, one in the present and one in the past, the past tense sentence produces the greater number of correct

⁴ Their incorrect answers could perhaps have been broken down in more detail to see whether they could have been affected by L1 or L2 (i.e. totally pre-verbal placement would be compatible with L2 transfer; totally post-verbal placement would be compatible with L1 transfer)

responses in each case. The difference is particularly notable in the case of the polar question, with 75% accuracy in the past tense

Sentence type (with question no. in brackets)	% correct	type of transfer compatible with correct answer	type of transfer compatible with incorrect answer	markedness - position	markedness -clause type
negative; present tense; pre -verbal (7,8)	89.06%	Spanish	English	marked	"inter"
affirmative; past tense; post -verbal(3)	87.5	English	Spanish	unmarked	unmarked
question; past ; pre - verbal(9)	81.25	Spanish	English	marked	"inter"
affirmative; present; post -verbal(1,2)	78.12%	English	Spanish	unmarked	unmarked
polar question; past; post -verbal (6)	75%	English	Spanish	unmarked	"inter"
embedded clause; pre -verbal (10,12)	56.25%	Spanish	English	marked	marked
post-adverbial (11); pre - verbal	56.25%	Spanish	English	marked	unmarked
polar question; present; post -verbal (5)	53.12%	English	Spanish	unmarked	"inter"
present perfect affirmative; between auxiliary and participle	40.62%	neither	both	marked	unmarked

Table 19: showing the order of frequency with which the rules of Portuguese clitic pronoun syntax were applied correctly in the production task, and relating this to cross-linguistic influence and markedness.

sentence and only 53.12% accuracy in the present tense sentence. Perhaps the greater frequency of use of the past tense aids in retrieval as well as recognition, with this structure.

If we look merely at the type of transfer compatible with a correct response (whether L1 or L2), there is no discernible pattern - the two types appear to alternate throughout the table, as do marked and unmarked structures. As with the judgement task, and unlike with the accuracy order for the elicitation task in the exploratory study, where similarity to Spanish over-rode markedness considerations, there is no evidence for the expected primacy of psychotypological distance over markedness. Another difference between the main study and the exploratory study is that in the

latter the accuracy order for the judgement task was very different from that for the production task, whereas here the two orders are broadly similar. Possibly, the differences in the results for the exploratory study were merely due to the design of the tasks.

8.2.2.2 Existential verbs

Verb/rule	% correct	type of transfer compatible with correct answer	type of transfer compatible with incorrect answer
<i>ser</i> : permanent characteristic	98.96%	Spanish English?	?
<i>estar</i> : temporary mood or location	93.75%	Spanish	English?
<i>ser</i> : permanent location	43.75%	English?	Spanish

Table 20: the order of frequency in which the rules of Portuguese existential verbs were applied correctly in the production task, and relating this to cross-linguistic influence.

Looking at table 20, the discrepancy between the percentages of accuracy on the first two verb uses and the third is very striking. Wherever Spanish might help in making a correct response, the accuracy rate is above 90%; where Spanish knowledge might lead towards an incorrect response, the accuracy rate is less than 50%.

It is also interesting to note that the highest accuracy rate of all is where there is no scope for negative transfer from L1 or L2, that is, where *ser* is used for a permanent characteristic. Here, if we accept that *ser* is the default existential verb for English speakers, then English L1 knowledge might arguably support the Spanish L2 knowledge. Where English knowledge (following this line of argument) might lead to negative transfer, (*estar* for temporary situation) the rate of accuracy is marginally lower.

8.3 Summary

In this chapter, a preliminary analysis of the data was described. Implicational scaling revealed little evidence of an acquisition order; the only place where the scale proved valid was in the *ser/estar* production task. From this it was concluded that learners of Portuguese with previous Spanish knowledge do in fact acquire the

Spanish-like rule for using these verbs before they acquire the non-Spanish-like rule; but this is only clear-cut in production.

Examination of accuracy orders pointed to noticeable differences between Spanish-speakers and non-Spanish-speakers, for both structures. For the clitic judgements, there was greater accuracy for the English-like sentences than for the Spanish-like sentences with the non-Spanish-speakers. On the other tasks, both this situation, and the reverse situation with the Spanish-speakers, were tendencies but not across-the-board findings. There was no specific pattern this time regarding marked and unmarked rules.

Another finding was the general tendency, often found among beginners, to accept rather than reject, which I suggest might be reinforced in this context by the multilingual status (and hence possibly less "conservative" grammar) of the learners; and, in the case of the clitic pronouns, by the fact that Portuguese does allow clitics in both pre- and post-verbal positions (albeit in a strictly rule-governed way, not in free variation).

In the next chapter, inferential statistics will be used to explore these issues further and to test the hypotheses outlined in Chapter 7.

9 RESULTS AND DISCUSSION: LANGUAGE-RELATED HYPOTHESES

In this chapter, I look at the posited linguistic variables; I examine each hypothesis in turn and describe the results of the significance tests, and decide whether or not the null hypothesis could be rejected in each case¹.

9.1 Testing Hypothesis 1

Recall that I hypothesised that there would be no significant transfer from Spanish L2 to Portuguese L3. My alternative hypotheses were that there would be significant positive transfer from Spanish to Portuguese where the rules were the same for both languages, and significant negative transfer where the rules differed; and that this would over-ride transfer from English L1. I tested this hypothesis on the judgement tasks and the production tasks separately, because of the nature of the tasks.

9.1.1 Judgement Tasks

The test used on the judgement tasks was a 3-way mixed design ANOVA, with previous Spanish knowledge as the between- subjects factor, and type (positive or negative) and source (L1 or L2) of transfer as within-subject factors, comparing responses (measured in terms of z scores) of previous-Spanish speakers and non-previous-Spanish speakers (all levels). I used this test twice, to examine clitics and existential verbs separately. Learners of Brazilian Portuguese were filtered out for the clitics² but not for the existential verbs. All levels were included.

From table 22 it can be seen that, for the clitic pronouns, the previous Spanish speakers made consistently more accurate judgements on average than the non-Spanish speakers, except in the case of sentences reflecting possible negative L2 transfer (where the difference is slight); in other words, knowledge of Spanish appears overall to be more beneficial than detrimental. We cannot claim across-the-

¹ There has to be a general caveat here about the nature of the statistics used in this study. The performance of ANOVA is conditional on certain assumptions of equal sample size and equal variance being met. This is not the case with my data; however, given the nature of the research design, it was not possible to use non-parametric statistics, so I proceeded with ANOVA in the realisation that this would mean that I could only talk about "tentative evidence" rather than "proof". A "reduced" form of ANOVA was performed, comparing the performance of a sample of 10 Spanish speakers with that of the 10 non-Spanish-speakers on the various tasks, in an attempt to adjust for the unequal sample sizes. Results can be found in Appendix 9.

² Because of the differences between Brazilian and European Portuguese rules in this area, as

board significance; as seen in table 21, there is no main effect of Spanish knowledge ($F = 1.89$, $df = 1, 68$, $p > .05$). On the other hand, there is a significant interaction effect of Spanish knowledge and source of transfer ($F = 4.42$, $df = 1, 68$, $p < .05$). Whereas Spanish speakers scored roughly the same on judgements reflecting possible negative L1 and possible negative L2 transfer, the non-Spanish speakers scored lower on those sentences that could reflect negative L1 transfer, - significantly lower both than the Spanish speakers and than they themselves scored on the sentences possibly denoting negative L2 transfer. This suggests that the effect of Spanish knowledge may be

Effect	F	DF	significance of F ($p < 0.05$)
Main Effect: Spanish Knowledge	1.89	1, 68	.17 (ns)
Main Effect: Source of Transfer (L1 or L2)	1.80	1, 68	.18 (ns)
Main Effect: Type of Transfer (pos. or neg.)	.48	1, 68	.49(ns)
Interaction Effect: Spanish by Type of Transfer (pos. or neg.)	.00	1, 68	.95 (ns)
Interaction Effect: Spanish by Source of Transfer (L1 or L2)	4.42	1, 68	.04 *
Interaction Effect: Spanish by Type of Transfer by Source of Transfer	.42	1, 68	.51 (ns)

Table 21: results of ANOVA comparing responses (measured in terms of z scores) of previous-Spanish speakers and non-previous-Spanish speakers, for sub-sections of the judgement task - clitic pronouns.

most beneficial in the avoidance of negative transfer from the L1. Indeed (and more surprisingly), on the items possibly reflecting positive L1 transfer, the Spanish-speakers also scored significantly higher than the non-Spanish speakers. However, as stated earlier, extreme caution is necessary when interpreting this data in terms of positive transfer from English; it is much more likely that the Spanish-speakers have acquired the Portuguese rule (perhaps aided by the unmarked status of the post-verbal position) than that they are using positive L1 transfer.

Regarding the non-Spanish speakers' tendency to accept erroneous English-like sentences, it is also conceivable that rather than transferring the L1 rule, they are

described in Chapter 4.

more prone to overgeneralise from the Portuguese input to assume that the clitic **always** falls after the verb, by analogy with affirmative and polar negative sentences. Indeed, perhaps the most likely explanation is a “multiple effect” (Selinker and Lakshamanan, 1993), with the input interacting with the L1 knowledge and markedness considerations.

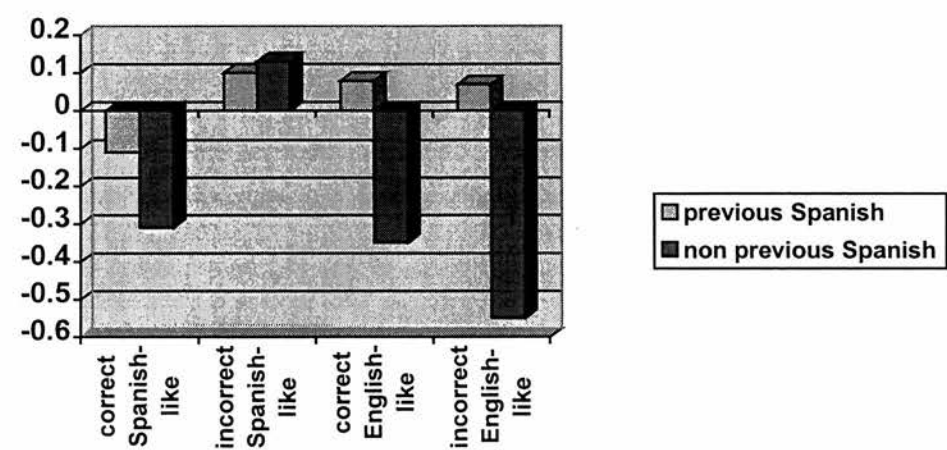


Chart 1 Bar graph showing scores for Spanish speakers and non-Spanish speakers on the clitic pronoun judgement task

Sub-section	Mean for Spanish speakers (n=62)	Mean for non-Spanish speakers (n= 10)
Questions 1-6 Positive L2 transfer	-.11 (range: -.4 - 1.28)	-.31 (range: -1.36 - .84)
Questions 7-12 Negative L2 transfer	.10 (range: -1.83 - 1.59)	.13 (range: -1.26 - 1.59)
Questions 13-18 Positive L1 transfer	.08 (range: -3.88 - 1.44)	-.35 (range: -1.76 - .37)
Questions 19-24 Negative L1 transfer	.07 (range: -2.11 - 1.88)	-.55 (range: -1.76 - .5)

Table 22: mean z scores for previous-Spanish speakers and non-previous-Spanish speakers (Brazilian Portuguese learners excluded) for sub-sections of the judgement tasks - Clitic pronouns.

	Spanish-speakers, Positive L1 sentences Mean = .08	Spanish-speakers, Negative L1 sentences Mean = .07	Non-Spanish-speakers Negative L2 sentences Mean = .13
Non-Spanish-speakers Positive L1 sentences Mean = -.35	5.02*		
Non-Spanish-speakers Negative L1 sentences Mean = -.55		7.24*	7.90*
$df = 68$ $k = 6$ critical value of $q = 4.16$ $n = 50^3$ $MS_{error} = .36$			

Table 23: results of Tukey test for selected sub-sections of the judgement tasks - clitic pronouns, showing value of Student's q .

Sub-section	Mean for Spanish speakers (n=65)	Mean for non-Spanish speakers (n=11)
Non-Spanish-like incorrect sentences	.05 (range: -3.02 - 1.59)	-.78 (range: -2.01 - .87)
Non-Spanish-like correct sentences	.11 (range: -2.09 - 1.35)	.60 (range: .2 - 1.06)
Spanish-like incorrect sentences	.12 (range: -1.15 - 2.09)	.64 (range: -.34 - 1.68)
Spanish-like correct sentences	.08 (range: -1.89 - 1.09)	-.93 (range: -2.48 - .49)

Table 24: mean z scores of previous-Spanish speakers and non-previous-Spanish speakers, for sub-sections of the judgement tasks - Ser/estar

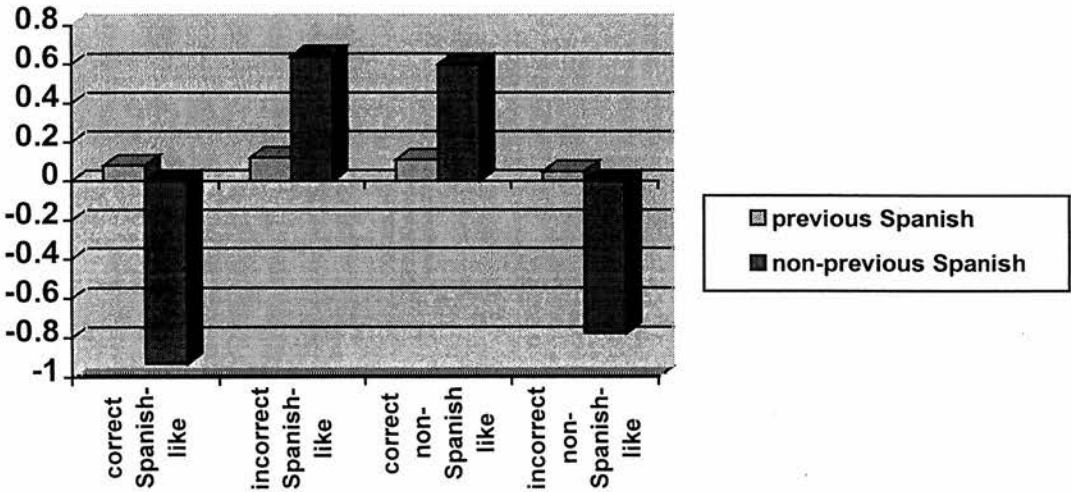


Chart 2: Bar graph showing scores for Spanish speakers and non-Spanish speakers on the *ser/estar* judgement task

³ This value of n was reached using a calculation found in Hinton (1995) (p.134) for unequal group sizes, with the caveat that Hinton does warn that we should be wary of using the test with groups of very unequal size, as the assumptions may be violated.

Effect	F	DF	significance of F ($p < 0.05$)
Main Effect: Spanish Knowledge	.43	1, 71	.51 (ns)
Main Effect: Source of Transfer (L1 or L2)	.14	1, 71	.71 (ns)
Main Effect: Type of Transfer (pos. or neg.)	.15	1, 71	.70 (ns)
Interaction Effect: Spanish by Type of Transfer (pos. or neg.)	.10	1, 71	.75 (ns)
Interaction Effect: Spanish by Source of Transfer (L1 or L2)	.04	1, 71	.84 (ns)
Interaction Effect: Type of Transfer by Source of Transfer	10.87	1,71	.02 *
Interaction Effect: Spanish by Type of Transfer by Source of Transfer	17.67	1, 71	.00 **

Table 25: results of ANOVA comparing responses (measured in terms of z scores) of previous-Spanish speakers and non-previous-Spanish speakers, for sub-sections of the judgement tasks - Ser/estar

	Spanish-speakers Non-Spanish-like correct items Mean = .11	Spanish-speakers Non-Spanish-like incorrect items Mean = .05	Spanish-speakers Spanish-like correct items Mean = .08	Spanish-speakers Non-Spanish-like incorrect items Mean = .12
non- Spanish-speakers Non-Spanish-like correct items Mean = .60	4.327*			
non-Spanish-speakers Non-Spanish-like incorrect items Mean = -.78		5.07*		
non-Spanish-speakers Spanish-like correct items Mean = -.93			6.184*	
non-Spanish-speakers Spanish-like incorrect items Mean = .64				4.662*
$df = 71$ $k = 6$ critical value of $q = 4.16$ $n = 50$ $MS_{\text{error}} = 1.35$				

Table 26: results of Tukey test for sub-sections of the judgement tasks - ser/estar, showing value of Student's q .

With the *ser/estar* sentences there is not a consistently better performance on the part of the Spanish speakers, and there is therefore no main effect of Spanish knowledge ($F = .43$, $df = 1, 71$, $p > .05$)⁴. However, there is a strong interaction effect of Spanish by type of transfer by source of transfer ($F = 10.87$, $df = 1, 71$, $p < .05$). Spanish speakers score significantly higher where Spanish would help (positive L2 transfer) and also where the use of *ser* as a default verb would lead to error, whereas the non-Spanish speakers score significantly higher where application of the Spanish would lead to error: i.e. in erroneous acceptance of "estar" in inappropriate but Spanish-like contexts, and in erroneous rejection of *ser* in appropriate but non-Spanish-like contexts. Rather than describing the latter in terms of L1 positive transfer, it would make more sense to label it as lack of negative L2 transfer. These results lend some statistical backing to the descriptive findings outlined in Chapter 8, and suggest that regarding this structure, L2-L3 C.L.I does occur at the competence level.

9.1.2 Production Tasks

I next performed two 2-way mixed-design ANOVAs, with previous Spanish knowledge as the between- subjects factor, and source of transfer as the within- subjects factor, comparing responses of previous-Spanish speakers and non-previous-Spanish speakers (measured in terms of z scores) to the sub-sections of the production tasks. Again, Brazilian learners were excluded for clitics, and all levels were collapsed. On the task involving placement of clitics, there were no significant differences between the Spanish- and the non-Spanish-speakers ($F = .29$, $df = 1, 68$, $p > .05$).

Notwithstanding the lack of significance in the results, the non-Spanish speakers clearly performed somewhat better than the Spanish speakers on the question requiring Spanish-like order - this is unexpected; one wonders if they could have

⁴ Interestingly though, the performance of the Spanish speakers is more consistent than that of the non-Spanish speakers, in that their mean scores across the different sentence types fluctuate far less: the means for the Spanish speakers range from .05 - .12, those of the non-Spanish speakers from -.93 - .64.

been influenced by previous study of French⁵. Or conversely, whether the Spanish

Effect	F	DF	significance of F (p < 0.05)
Main Effect: Previous Spanish Knowledge	.29	1, 68	.59 (ns)
Main Effect: Source of Transfer (L1 or L2)	.38	1, 68	.54 (ns)
Interaction Effect: Previous Spanish Knowledge by Source of Transfer	.17	1, 68	.68 (ns)

Table 27: results of ANOVA comparing responses (measured in terms of z scores) of previous-Spanish speakers and non-previous-Spanish speakers (learners of Brazilian Portuguese excluded) for sub-sections of the production task - clitic pronouns.

	Mean for Spanish speakers (n=62)	Mean for non Spanish speakers (n=10)
Questions where the order is like English (Pos L1 Transfer)	.11 (range: -.1.97 - .87)	.16 (range: -1.26 - .87)
Questions where the order is like Spanish (Pos L2 Transfer)	-.10 (range: -.3.15 - 1.21)	.12 (range: -1.7 - 1.21)

Table 28: mean z scores of previous-Spanish speakers and non-previous-Spanish speakers, for sub-sections of the production tasks - clitic pronouns

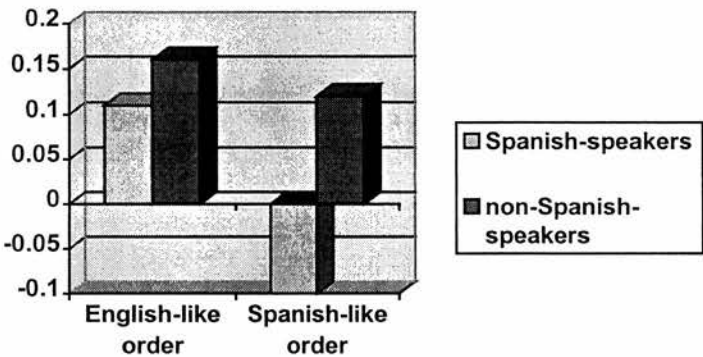


Chart 3 Bar graph showing mean z scores for clitic production task, Spanish speakers and non-Spanish speakers

speakers were using some kind of strategy of hyper-correction - it is possible that for non-Spanish speakers, the pre-verbal and non-English-like order is more salient and noticeable, and therefore more memorable, whereas the Spanish speakers might

⁵ In fact, the majority of the subjects had studied French previously (their self-assessed proficiency ranging from "elementary" to "fluent"), and this may well account for the relative lack of an effect of Spanish knowledge for this structure, given that French also has pre-verbal clitics. Some, however, rated their level as "poor" or "haven't studied for six years", so one would expect the effect of French to be slight in these cases.

expect a Spanish-like order on the basis of their observation of similarities between the two languages, and it might in fact be the NON-Spanish-like order that is more salient and memorable for them. However, in the end, this result is probably just attributable to chance, given that the differences are not significant. In general, it is interesting that the trend for Spanish-speakers to score higher on judgements is reversed with production tasks, for this feature; their greater knowledge does not appear to translate itself into accurate production.

The picture is different when we turn to look at the tasks involving *ser/estar*: there were some significant differences, irrespective of whether the comparison was made regarding all levels, or beginners only. The tables below show the results for all levels. There was no main effect for Spanish knowledge alone ($F = 2.20$, $df = 1, 74$, $p > .05$); in other words, Spanish speakers did not score higher consistently. There was, however, a strong main effect of source of transfer ($F = 37.06$, $df = 1, 74$, $p < .01$), in this case meaning that the total mean score for all learners was higher on the non-Spanish-like *ser* sentences than on the Spanish-like *ser/estar* ones, although the Spanish speakers did score slightly higher on the Spanish-like sentences (see Chart 4). Moreover, there was a very strong interaction effect of Spanish knowledge by source of transfer ($F = 62.41$, $df = 1, 74$, $p < .01$). Spanish speakers scored significantly higher than non-Spanish speakers on sentences where use of Spanish rules would lead to correct production, and significantly lower than non-Spanish speakers where use of Spanish rules would lead to error. This was as predicted, and similar to the findings for the judgement tasks.

Effect	F	DF	significance of F ($p < 0.05$)
Main Effect: Previous Spanish Knowledge	2.20	1, 74	.14 (ns)
Main Effect: Source of Transfer (L1 or L2)	37.06	1, 74	.000 ***
Interaction Effect: Previous Spanish Knowledge by Source of Transfer	62.41	1, 74	.000 ***

Table 29: results of ANOVA comparing responses (measured in terms of z scores) of previous-Spanish speakers and non-previous-Spanish speakers (learners of Brazilian Portuguese excluded) for sub-sections of the production task - *ser/estar*.

	Mean for Spanish speakers (n=68)	Mean for non Spanish speakers (n=11)
Qu. 1-3, non-Spanish-like <i>ser</i> .	-.14 (range: -.95 - 1.25)	1.03 (range: .52 - 1.25)
Qu. 4-9, Spanish-like <i>ser/estar</i> .	.20 (range: -1.75 - .55)	-1.63 (range: -5.21 - .55)
Qu. 4-6 <i>ser</i>	.27 (range: -1.57 - .39)	-1.57 (range: -5.49 - .39)
Qu. 7-9 <i>estar</i>	.11 (range: -2.98 - .49)	-.77 (range: -2.98 - .49)

Table 30: mean z scores of previous-Spanish speakers and non-previous-Spanish speakers, for sub-sections of the production tasks - Ser/estar

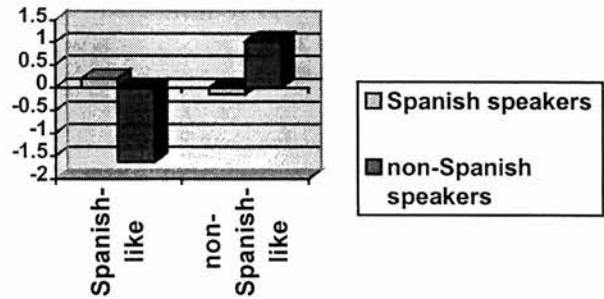


Chart 4 Bar graph showing mean z scores on *ser/estar* production task, Spanish speakers and non-Spanish speakers.

	Spanish-speakers non-Spanish-like sentences Mean = -.14	non-Spanish- speakers non-Spanish-like sentences Mean = 1.03	Spanish-speakers Spanish-like sentences Mean = .20	non-Spanish- speakers Spanish-like sentences Mean = -1.63
Spanish-speakers non-Spanish-like sentences				
non-Spanish- speakers non-Spanish-like sentences	10.41*			
Spanish-speakers Spanish-like sentences	3.08 (ns)			
non-Spanish- speakers Spanish-like sentences		23.78*	16.44*	
<i>df</i> = 74 <i>k</i> = 4 critical value of <i>q</i> = 3.74 <i>n</i> = 50 <i>MS</i> _{error} = .63				

Table 31: results of Tukey test for sub-sections of the production task - *ser/estar*, showing value of Student's *q*.

For the non-Spanish-speakers, scores were significantly higher for the sentences requiring non-Spanish-like use of *ser* than for sentences requiring Spanish-like use of *ser/estar*, while for the Spanish speakers the reverse was true, although the difference in the latter case was not significant. All of this points to the occurrence of L2-L3 transfer for this feature in production as well as in recognition.

As with the judgement task, it is also interesting to note the greater consistency of the Spanish-speakers' performance (overall means for the two item-types: -.14 and .20) as compared with the non-Spanish speakers (overall means: 1.03 and -1.63; a far larger discrepancy)

9.1.3 Beginners

The ANOVA tests were repeated to examine the effect of Spanish knowledge with beginners only, the rationale being that all the non-Spanish speakers were beginners, so therefore it could be appropriate to compare them with subjects at the same level, to ascertain whether the findings for the whole-group comparison would be replicated. Again, learners of Brazilian Portuguese were excluded for the tests involving clitics.

With the judgement tasks, as with the whole group, there was no main effect for Spanish knowledge with either feature. For the clitics, like with the whole-group comparison, there was an interaction effect of Spanish by source of transfer ($F = 4.16$, $df = 1,41$, $p = .05$), but there was also an interaction effect for Spanish by source of transfer by type of transfer ($F = 4.02$, $df = 1,41$, $p = .05$) which did not occur with the whole-group comparison. This time, although the Spanish-speakers still scored higher than the non-Spanish speakers on the English-like sentences, the difference was not significant in the case of sentences possibly instantiating positive L1 transfer. In other words, these subjects still scored significantly higher when rejecting incorrect English-like sentences (and avoiding negative L1 transfer), but when it came to accepting correct English-like sentences, they scored higher but not significantly. The fact that the latter difference is significant when all levels are considered together, supports the notion that the higher incidence of correct

judgements on these sentences may be an index of acquisition of the target structure rather than L1 positive transfer.

Effect	F	DF	significance of F (p < 0.05)
Main Effect: Spanish Knowledge	1.79	1, 41	.19 (ns)
Main Effect: Source of Transfer (L1 or L2)	.99	1, 41	.33 (ns)
Main Effect: Type of Transfer (pos. or neg.)	.02	1, 41	.89(ns)
Interaction Effect: Spanish by Type of Transfer (pos. or neg.)	.35	1, 41	.56 (ns)
Interaction Effect: Spanish by Source of Transfer (L1 or L2)	4.16	1, 41	.05 *
Interaction Effect: Spanish by Type of Transfer by Source of Transfer	4.02	1,41	.05 *

Table 32: results of ANOVA comparing responses (measured in terms of z scores) of previous-Spanish speakers and non-previous-Spanish speakers, for sub-sections of the judgement task - clitic pronouns. Beginners only.

	Spanish-speakers, Positive L1 Transfer sentences Mean = .03	Spanish-speakers, Negative L1 Transfer sentences Mean = .13	Spanish-speakers, Positive L2 Transfer sentences Mean = .08	Spanish-speakers, Negative L2 Transfer sentences Mean = .12
Non-Spanish-speakers, Positive L1 Transfer sentences Mean = -.35	3.8 (ns)			
Non-Spanish-speakers, Negative L1 Transfer sentences Mean = -.55		6.8*		
Non-Spanish-speakers, Positive L2 Transfer sentences Mean = -.31			3.9 (ns)	
Non-Spanish-speakers, Negative L2 Transfer sentences Mean = -.13				2.5 (ns)
Df = 41 k = 6 n = 46 MS _{error} = .44 critical value of q = 4.23				

Table 33: results of Tukey test for selected sub-sections of the judgement tasks - beginners only - clitic pronouns, showing value of Student's q.

Effect	F	DF	significance of F ($p < 0.05$)
Main Effect: Spanish Knowledge	.64	1, 43	.43 (ns)
Main Effect: Source of Transfer (L1 or L2)	.01	1, 43	.90 (ns)
Main Effect: Type of Transfer (pos. or neg.)	.08	1, 43	.78(ns)
Interaction Effect: Spanish by Type of Transfer (pos. or neg.)	.84	1, 43	.36 (ns)
Interaction Effect: Spanish by Source of Transfer (L1 or L2)	.45	1, 43	.50 (ns)
Interaction Effect: Type of Transfer by Source of Transfer	18.51	1,43	.001***
Interaction Effect: Spanish by Type of Transfer by Source of Transfer	13.50	1, 43	.00**

Table 34: results of ANOVA comparing responses (measured in terms of z scores) of previous-Spanish speakers and non-previous-Spanish speakers, for sub-sections of the judgement task - *ser/estar*. Beginners only.

For the existential verb structure, as with the whole-group comparison, there was a highly significant interaction between Spanish knowledge, type of transfer and source of transfer ($F = 13.50$, $df = 1,43$, $p < .01$). However, post hoc comparison of means revealed that in this case, the differences were significant only for the sentences involving acceptance of Spanish-like correct use of these verbs, and on those requiring rejection of incorrect non-Spanish-like verb choice; accuracy on both of these item-types could be attributed to positive L2 transfer. In other words, even at beginners' level only, the Spanish speakers scored significantly higher here. Their scores were lower than those of the non-Spanish speakers on sentences requiring acceptance of correct but non-Spanish-like verb choice, and on those involving rejection of incorrect but Spanish-like verb use, low scores on both of which could imply negative L2 transfer; but unlike in the whole group comparison, the differences are not significant. These findings suggest that for this feature positive L2>L3 transfer at the competence level may “set in” sooner than negative transfer.

are not significant. These findings suggest that for this feature positive L2>L3 transfer at the competence level may “set in” sooner than negative transfer.

	Spanish-speakers, Non-Spanish-like correct items Mean = .16	Spanish-speakers, Non-Spanish-like incorrect items Mean = -.14	Spanish-speakers, Spanish-like correct items Mean = .12	Spanish-speakers, Spanish-like incorrect items Mean = .05
Non-Spanish-speakers, Non-Spanish-like correct items Mean = .60	2.93 (ns)			
Non-Spanish-speakers, Non-Spanish-like incorrect items Mean = -.78		4.26*		
Non-Spanish-speakers, Spanish-like correct items Mean = -.93			7.0*	
Non-Spanish-speakers, Spanish-like incorrect items Mean = .64				3.93 (ns)
<i>Df</i> = 43 <i>k</i> = 6 <i>n</i> = 46 <i>MS</i> _{error} = 1.07 critical value of <i>q</i> = 4.23				

Table 35: results of Tukey test for selected sub-sections of the judgement tasks - beginners only - *ser/estar* -value of Student's *q*.

Turning to the production tasks, for the clitic pronouns there was no effect, as with the whole-group comparison; in fact, the differences become even less significant.

However, for the *ser/estar* structure, the results were similar to those for the whole-group comparison: there was a main effect of source of transfer ($F = 33.75$, $df = 1, 45$, $p < .01$), and an interaction effect of Spanish by source of transfer. With the whole-group comparison, the value of p was higher - perhaps just because higher numbers were involved.

Effect	F	DF	significance of F ($p < 0.05$)
Main Effect: Spanish Knowledge	.53	1, 41	.47 (ns)
Main Effect: Source of Transfer (L1 or L2)	.01	1, 41	.93 (ns)
Interaction Effect: Spanish knowledge by Type of Transfer (pos. or neg.)	.10	1, 41	.76(ns)

Table 36: results of ANOVA comparing responses (measured in terms of z scores) of previous-Spanish speakers and non-previous-Spanish speakers, for sub-sections of the production task - clitics. Beginners only.

Effect	F	DF	significance of F ($p < 0.05$)
Main Effect: Spanish Knowledge	.1.99	1, 45	.16 (ns)
Main Effect: Source of Transfer (L1 or L2)	33.75	1, 45	.00***
Interaction Effect: Spanish knowledge by Source of Transfer (L1 or L2)	53.91	1, 45	.00***

Table 37: results of ANOVA comparing responses (measured in terms of z scores) of previous-Spanish speakers and non-previous-Spanish speakers, for sub-sections of the production task - *ser/estar*. Beginners only.

9.1.4. Comparison of *ser* and *estar*

A further ANOVA was carried out (on the production tasks), with Spanish knowledge as between-subjects factor and existential verb as within-subjects factor, involving only those sentences where Spanish would help produce accurate responses, to compare performance on sentences requiring *ser* with performance on sentences requiring *estar*. It can be seen from Table 37 that there was a highly significant main effect of Spanish ($F = 47.66$, $df = 1, 74$, $p < .01$), with Spanish-speakers scoring significantly higher than non-Spanish speakers for both verbs. This points to the facilitating effect in general of the fact that Spanish has the same two verbs of existence as Portuguese - even if they do work differently in some contexts. There is also a significant interaction effect of Spanish knowledge and verb, such that the non-Spanish speakers scored significantly better on the sentences requiring *estar* than on those requiring *ser* ($f = 6.14$, $df = 1, 74$, $p < .05$) (the reverse is true of the Spanish-speakers, though the difference is not significant). This means that they were more likely to incorrectly substitute *estar* for *ser* than vice versa. This finding is a little surprising, given that I had assumed that *ser* would be the default verb, and would be more likely to be over-used than *estar*. The fact that this turned out not to be so for the non Spanish-speakers could perhaps be a result of teaching practice, or there may be some other reason why this verb was more salient and noticeable to this particular group of learners⁶.

⁶ Perhaps, for example, it bears more phonological resemblance to the French “être”, with which learners may be familiar.

Effect	F	DF	Significance of F p = < 0.05)
Spanish knowledge	47.66	1, 74	.00 **
verb	3.21	1, 74	.08
Interaction effect: Spanish by verb	6.14	1, 74	.02 *

Table 38: results of ANOVA comparing responses (measured in terms of z scores) of Spanish speakers and non-Spanish speakers on *ser/estar* production task for sentences requiring a Spanish-like rule for correct production.

	Mean z scores for <i>estar</i> (Spanish -like use)	Mean z scores for <i>ser</i> (Spanish -like use)
Spanish speakers n = 63	.10 (-2.98 - .49)	.24 (-1.57 - .38)
non-Spanish speakers n = 10	-.89 (-2.98 - .49)	-1.77 (-5.49 - .38)

Table 39: mean z scores for Spanish- and non-Spanish speakers on *ser/estar* production task for Spanish-like rule sentences.

	Spanish speakers <i>ser</i> mean = .24	non-Spanish speakers <i>ser</i> mean = -1.77	Spanish speakers <i>estar</i> mean = .10	non-Spanish speakers <i>estar</i> mean = -.89
Spanish speakers <i>ser</i>		15.67*	1.09 (ns)	
non-Spanish speakers <i>ser</i>				6.80*
Spanish speakers <i>estar</i>				7.78*
non-Spanish speakers <i>estar</i>				
df = 74 k = 4 n = 50 critical value of q MS _{error} = .82 (Spanish factor) .72 (verb factor)				

Table 40: results of Tukey test for the production task - *ser/estar*, comparing the two verbs and Spanish-speakers/ non-Spanish speakers, showing value of Student's q.

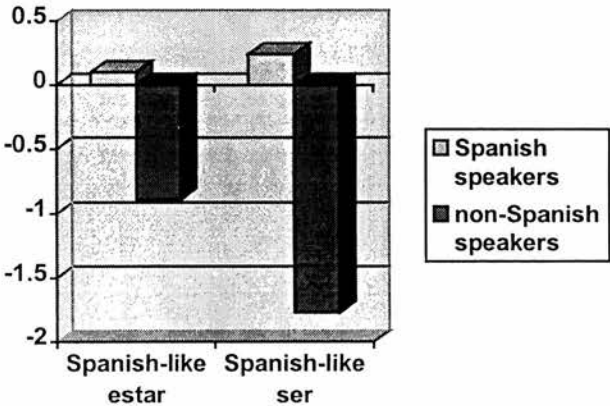


Chart 5 Bar graph showing mean z scores for correct supplying of *ser* and for *estar* in production tasks, comparing Spanish speakers and non-Spanish speakers.

9.2 Testing Hypothesis 2

Recall that I hypothesised that there would be significantly more L2>L3 transfer in the judgement tasks than in the production tasks. This was tested using a 3-way repeated measures ANOVA with task-type, language feature and source of transfer as within-subjects factors.

Effect	F	df	significance of F ($p < .05$)
Task	.24	1, 58	.63 (ns)
Language feature	.00	1, 58	.99 (ns)
Source of transfer	.17	1, 58	.68 (ns)
Interaction: Task by Language feature	.43	1, 58	.51 (ns)
Interaction: Task by Source of transfer	1.95	1, 58	.17 (ns)
Interaction: Language feature by Source of transfer	6.13	1, 58	.17 (ns)
Interaction: Task by language feature by source of transfer	.46	1, 58	.50 (ns)

Table 41: results of ANOVA comparing responses (measured in terms of z scores) of Spanish speakers on judgement tasks (only correct sentences, with both Spanish-like and English-like order) and on production tasks.

There appears to be no significant effect of task-type on the amount of transfer taking place, suggesting that there is no difference between transfer at the level of knowledge and transfer at the level of controlled production, at least as far as these structures are concerned. This means the null hypothesis must be accepted. Perhaps this is because the elicitation task is very controlled; both tasks, while different in some respects (the judgement task involving recognition only, the elicitation task involving production) were ultimately similar in the amount of "attention to form" involved (c.f. Tarone 1983, 1988). The content was entirely controlled by the examiner, therefore in both tasks the subjects would be paying attention to the form rather than the message. As stated in 7.1, I now regret not collecting any spontaneous or semi-spontaneous data. Scores on the judgement task should have been compared with scores on a free production task to get a fuller picture of variability, and ascertain whether the amount of transfer occurring differs between styles.

	Judgement Tasks (n = 59)	Production tasks (n = 59)
Clitics: L1 -like	.08 (range: -3.88 - 1.44)	.11 (range: -1.98 - .87)
Clitics: L2-like	-.11 (range: -4.00 - 1.28)	-.10 (range: -3.15 - 1.21)
<i>ser/estar</i> non-Spanish-like	-.07 (range: -2.09 - 1.35)	-.11 (range: -.95 - 1.25)
<i>ser/estar</i> Spanish-like	.06 (range: -1.89 - 1.09)	.23 (range: -1.75 - .55)

Table 42: means for judgement tasks (only correct sentences, with Spanish-like and non-Spanish-like use) and production tasks, Spanish-speakers only.

9.3 Testing Hypothesis 3

Recall that I hypothesised that subjects would transfer significantly more from L2-L3 on the "semantic" structure (existential verbs) than on the "syntactic" structure (clitic pronouns). I tested this hypothesis on the judgement tasks and the production tasks separately. Certainly, in the findings reported in 9.1, there seemed to be more evidence in favour of C.L.I. for *ser/estar* than for the clitics; let us now see if it is borne out by direct comparison.

9.3.1 Judgement Tasks

To test this hypothesis for the Judgement Tasks, I carried out a 3-Way Repeated Measures ANOVA comparing performance regarding the two structures in question, in terms of the four possible kinds of transfer (Positive L1, Negative L1, Positive L2, Negative L2), across all levels, with non-Spanish-speakers excluded. I had expected

Sub-section	Mean for clitics (n=60)	Mean for <i>ser/estar</i> (n=60)
Responses to Spanish-like correct sentences	-.11 (range: -.4 - 1.28)	.06 (range: -1.89 - 1.09)
Responses to Spanish-like incorrect sentences	.10 (range: -1.83 - 1.59)	-.08 (range: -1.15 - 2.09)
Responses to non-Spanish-like correct sentences	.08 (range: -3.88 - 1.44)	-.07 (range: -2.09 - 1.35)
Responses to non-Spanish-like incorrect sentences	.07 (range: -2.11 - 1.88)	.05 (range: -3.02 - 1.59)

Table 43: means of z scores on Judgement tasks for the two features for each sentence-type (Spanish-speakers only)

to find more L2 - L3 transfer at the semantic level; however, this test indicated no significant differences, so the null hypothesis must be accepted at least at the level of recognition.

Effects	F	DF	significance of F (p < .05)
Main Effect: Grammatical Feature	.32	1, 59	.57 (ns)
Main Effect: Source of Transfer (L1 or L2)	.59	1, 59	.45 (ns)
Main Effect: Type of Transfer (Positive or Negative)	.24	1, 59	.62 (ns)
Interaction Effect: Grammatical Feature by Source of Transfer	.49	1, 59	.49 (ns)
Interaction Effect: Grammatical Feature by Type of Transfer	.67	1, 59	.41 (ns)
Interaction Effect: Grammatical Feature by Source of Transfer by Type of Transfer	1.12	1, 59	.29 (ns)

Table 44: results of ANOVA comparing z scores for the two features on Judgement tasks (Spanish-speakers only)

9.3.2 Production Tasks

The next test was a 2-Way Repeated Measures design comparing responses to the production task for the two structures in question in terms of the possible sources of transfer, across all levels, with non-Spanish-speakers excluded. There was no significant main effect of source of transfer or language feature, but there was a significant interaction effect ($F = 8.05, df = 1,59, p < .05$). In other words, there is no significant difference between the two structures in terms of the overall amount of positive transfer occurring, but L2 positive transfer was a significantly more beneficial factor aiding accurate production in the case of *ser* and *estar* than in the case of clitic pronouns. On sentences requiring non-Spanish-like choices, subjects performed significantly better on the clitic sentences than on the *ser/estar* ones; looked at from another angle, this means there was also more negative L2/L3 transfer with the semantic structure than with the syntactic one. In other words, in production, the semantic structure appears to lend itself more to L2 transfer, whether positive or negative, than does the syntactic structure; this is interesting, as it echoes what was suggested in 9.1, and lends some support to the alternative hypothesis.

Effects	F	DF	significance of F (p < 0.05)
Grammatical feature	.40	1, 59	.53 (ns)
Source of transfer (L1 or L2)	.39	1, 59	.53 (ns)
Interaction effect: Grammatical feature by Source of transfer (L1 or L2)	8.05	1, 59	.01 *

Table 45: results of ANOVA comparing z scores on the two features in the Production Tasks.

	non-Spanish-like <i>ser/estar</i> mean = -.11	Spanish-like <i>ser/estar</i> mean = .23	English-like clitics mean = .11	Spanish-like clitics mean = -.10
non-Spanish-like <i>ser/estar</i>		37.00*	22.00*	
Spanish-like <i>ser/estar</i>				33.00*
English-like clitics				21.00*
Spanish-like clitics				
<i>df</i> = 59 <i>k</i> = 4 critical value of <i>q</i> = 3.98 <i>n</i> = 60 <i>MS</i> _{error} = .60				

Table 46: results of Tukey test for the production task - comparing the two features, Spanish-speakers only, showing value of Student's *q*.

	Mean for clitics (n= 60)	Means for <i>ser/estar</i> (n=60)
Responses to sentences eliciting Spanish-like rule	-.10 (range: -3.15 - 1.21)	.20 (range; -1.75 - .55)
Responses to sentences eliciting non-Spanish-like rule	.11 (range: -1.97 - .87)	-.14 (range: -.95 - 1.25)

Table 47: means for the two features on the production tasks.

9.4 Testing Hypothesis 4

Recall that we hypothesised that the amount of L2-L3 transfer would decrease significantly as subjects' proficiency increased. There was some evidence in 9.1.3 suggesting that level might make a difference, though not always necessarily in the expected direction.

9.4.1 Judgement tasks

To test this hypothesis, we first carried out a 3-Way mixed design ANOVA comparing performance in the judgement task across the three levels, with level as the between-subjects factor and source of transfer and type of transfer as the within-subject factors. Only Spanish speakers were involved. The learners of Brazilian Portuguese were included for the analysis of *ser/estar* and excluded for clitics. There

was no main effect for level with either structure, which is surprising because I had expected accuracy to increase with level, while negative transfer decreased.

However, for the existential verb structure, there was a significant interaction effect when level was combined with source of transfer ($F = 3.84$, $df = 2, 60$, $p < .05$), such that the advanced learners were significantly better at rejecting incorrect non-Spanish-like sentences (reflecting possible positive L2 transfer) than the intermediate ones, who in turn were significantly better than the beginners; whereas the advanced learners were significantly worse than the beginners at rejecting incorrect but Spanish-like sentences (differences between beginners and intermediate, and intermediate and advanced, were not significant here). In other words, negative transfer appears to have increased. This could be because the advanced learners have spent a year living in a Spanish-speaking country (with a shorter period in Portugal), and Spanish rules may be more vivid in their minds than before their year of residence.

Looking at each level in turn, the beginners score better at rejecting Spanish-like incorrect sentences than at rejecting non-Spanish-like incorrect sentences, although not significantly, whereas the advanced students score significantly better at rejecting non-Spanish-like incorrect forms than at rejecting Spanish-like incorrect forms; in fact their highest and lowest scores respectively are for these sentence-types.

For the correct sentences (whether Spanish-like or not), there was a noticeable dip at the intermediate level - a stage of being over-cautious, perhaps, which has also been described by, for example, Kellerman (1987). For non-Spanish-like *ser* sentences, the dip and the subsequent increase were both significant, though the overall drop in the score was not. This is rather interesting as it could be that the initial high score is due to positive L1 transfer (if choice of *ser* as default can be interpreted in this way), while the final high score is due to acquisition, with the dip corresponding to a stage of negative L2 transfer in the form of rejection of the non-Spanish-like form. For the Spanish-like sentences, the dip was not significant, but the subsequent rise was; overall, there was an improvement but not a significant one. Again, perhaps the rise represented acquisition rather than positive L2 transfer;

however, given the accompanying rise in negative transfer with these subjects, this seems less likely.

	A	B	C	D	E	F	G	H	I	J	K	L
A) Beginners, non-Spanish-like correct. mean = .15					8.62*				2.38 (ns)			
B) Beginners, non-Spanish-like incorrect. mean = -.14				2.37 (ns)		4.75*						
C) Beginners, Spanish-like correct. mean = .12							2.62 (ns)				2.12 (ns)	
D) Beginners, Spanish-like incorrect. mean = .05								2.75 (ns)				5.55*
E) Intermediate, non-Spanish-like correct. mean = -.54									6.25*			
F) Intermediate, non-Spanish-like incorrect. mean = .24										6.90*		
G) Intermediate, Spanish-like correct. mean = -.09											4.75*	
H) Intermediate, Spanish-like incorrect. mean = -.17												3.87 (ns)
I) Advanced, non-Spanish-like correct. mean = -.04												
J) Advanced, non-Spanish-like incorrect. mean = .79												
K) Advanced, Spanish-like correct. mean = .29												
L) Advanced, Spanish-like correct. mean = -.44												
df= 60 k = 7 n = 36 critical value of q = 4.31 MS _{error} = .26												

Table 48: results of Tukey test for the *ser/estar* judgement task - comparing the three levels, Spanish-speakers only, showing value of Student's *q*.

Effects	F	DF	significance of F ($p < 0.05$)
Level	1.09	2,60	.34 (ns)
Source of transfer (L1 or L2)	2.53	1, 60	.12 (ns)
Type of transfer (pos./neg.)	.35	1, 60	.56 (ns)
Interaction effect: Level by Source of transfer (L1 or L2)	3.84	2,60	.03 *
Interaction effect: Level by Type of transfer (pos./neg.)	2.62	2,60	.08 (ns)
Interaction effect: Source of transfer (L1 or L2) by Type of transfer (pos./neg.)	4.43	1,60	.04*
Interaction effect: Level by Source of transfer (L1 or L2) by Type of transfer (pos/neg)	2.66	2,60	.08 (ns)

Table 49: results of ANOVA exploring the effect of level on mean z scores in the judgement task, for *ser/estar*.

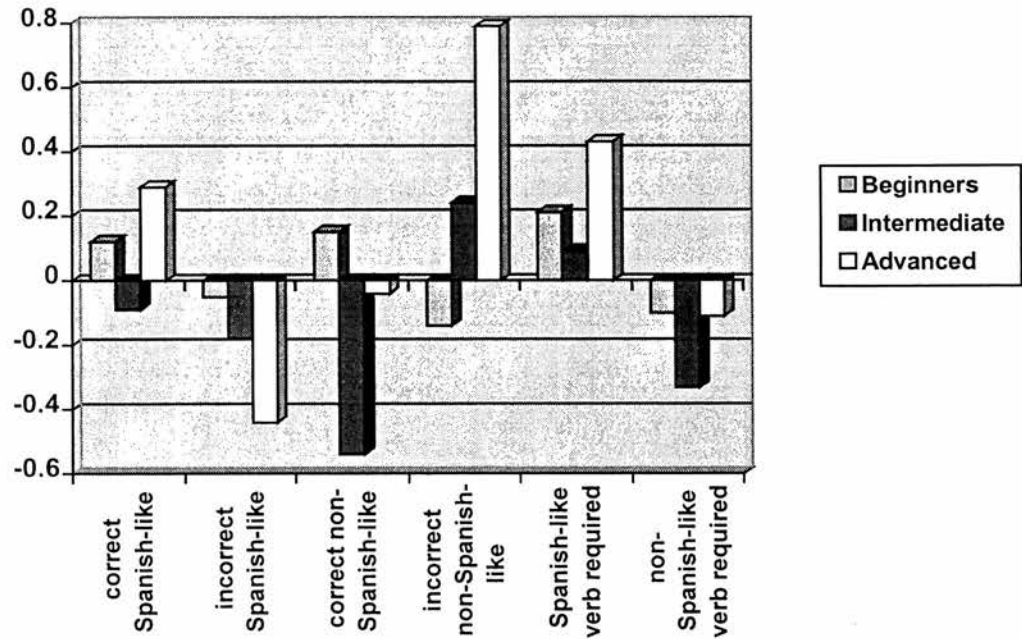


Chart 6 Bar graph showing mean z scores on *ser/estar* judgement and production tasks by level.

Turning now to the clitics, there was a significant interaction effect when level, source of transfer and type of transfer were combined ($F = 3.85$, $df = 2,57$, $p < .05$). This means that there were significant differences regarding only one of the sentence-types, those instantiating negative L2 transfer. In this case, improvement is consistent from level to level, as students become increasingly likely to reject Spanish-like sentences with incorrectly placed pre-verbal clitics, and the difference

between scores for beginners and advanced is significant. For the other three sentence-types, there are dips at the intermediate level, but none significant. This decrease in negative L2 transfer is the opposite of what occurred with the *ser/estar* structure, and it is interesting to speculate as to why this should be the case. It rather suggests that L2 > L3 transfer on a semantic level is longer-lasting and harder to eradicate than L2 > L3 transfer on a purely syntactic level. Perhaps this is due to the greater salience of syntactic differences.

Effects	F	DF	significance of F (p < 0.05)
Level	.64	2,57	.53 (ns)
Source of transfer (L1 or L2)	.19	1, 57	.66 (ns)
Type of transfer (pos./neg.)	2.17	1, 57	.15 (ns)
Interaction effect: Level by Source of transfer (L1 or L2)	.27	2,57	.76 (ns)
Interaction effect: Level by Type of transfer (pos./neg.)	1.43	2,57	.25 (ns)
Interaction effect: Source of transfer (L1 or L2) by Type of transfer.	4.58	1, 57	.04*
Interaction effect: Level by Source of transfer (L1 or L2) by Type of transfer (pos/neg)	3.85	2,57	.03*

Table 50: results of ANOVA exploring the effect of level on z scores in the judgement task for clitics

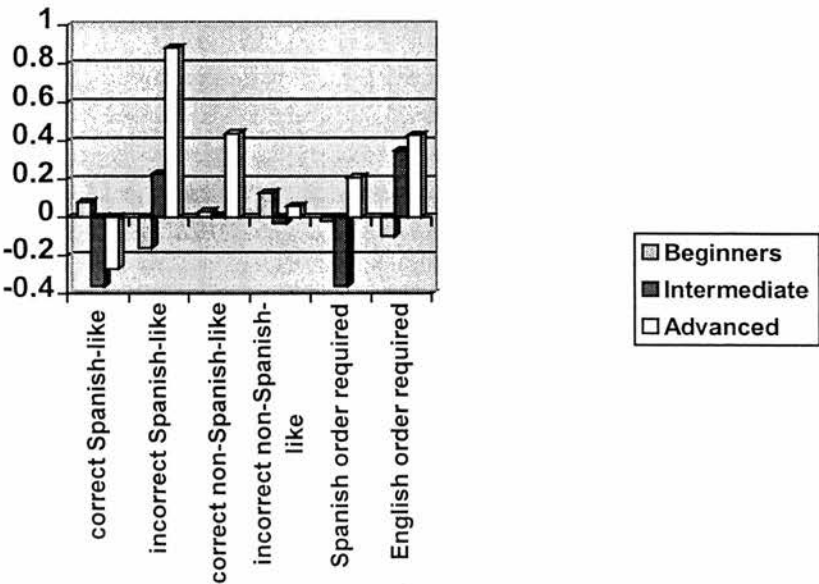


Chart 7 Bar graph showing mean z scores on clitic judgement and production tasks by level.

	A	B	C	D	E	F	G	H	I	J	K	L
A) Beginners, non-Spanish-like correct. mean = .03					.12 (ns)							
B) Beginners, non-Spanish-like incorrect. mean = .13						1.00 (ns)						
C) Beginners, Spanish-like correct. mean = .08							2.75 (ns)					
D) Beginners, Spanish-like incorrect. mean = -.16								2.44 (ns)				6.5 *
E) Intermediate, non-Spanish-like correct. mean = .01									2.69 (ns)			
F) Intermediate, non-Spanish-like incorrect. mean = -.03										.56 (ns)		
G) Intermediate, Spanish-like correct. mean = -.36											.56 (ns)	
H) Intermediate, Spanish-like incorrect. mean = .23												4.06 (ns)
I) Advanced, non- Spanish-like correct. mean = .44												
J) Advanced, non-Spanish-like incorrect. mean = .06												
K) Advanced, Spanish-like correct. mean = -.27												
L) Advanced, Spanish-like correct. mean = .88												
df= 57 k = 7 n = 33 critical value of q = 4.31 MS _{error} = .87												

Table 51: results of Tukey test for the clitic judgement task - comparing the three features, Spanish-speakers only, showing value of Student's *q*.

9.4.2 Production tasks

To examine the production tasks, 2-way mixed design ANOVAs were carried out, with level as the between-subjects factor and source of transfer as the within-subjects factor. There was again a dip at intermediate level for performance on both sentence types for the *ser/estar* task, and for the sentences requiring Spanish-like order for the clitic task, but these differences were not significant. There was no main effect for level; nor was there any interaction effect, with these tasks. Thus it seems that changes in knowledge/competence regarding C.L.I. are not necessarily reflected in controlled performance.

Effects	F	DF	significance of F (p < 0.05)
Level	1.23	2,63	.30 (ns)
Source of transfer (L1 or L2)	4.92	1, 63	.03 *
Interaction effect: Level by Source of transfer (L1 or L2)	.07	2,63	.93 (ns)

Table 52: results of ANOVA examining effect of level on responses for the production tasks, for the *ser/estar* structure.

Effects	F	DF	significance of F (p < 0.05)
Level	.91	2,57	.41 (ns)
Source of transfer (L1 or L2)	2.35	1, 57	.13 (ns)
Interaction effect: Level by Source of transfer (L1 or L2)	2.47	2,57	.09 (ns)

Table 53: results of ANOVA examining the effect of level on responses for the production tasks, for the clitic pronouns.

	Beginners (Spanish) n=33	Inter. n=18	Advanced n=8
Questions 1-6 Positive L2 transfer	.08	-.36	-.27
Questions 7-12 Negative L2 transfer	-.16	.23	.88
Questions 13-18 Positive L1 transfer	.03	.01	.44
Questions 19-24 Negative L1 transfer	.13	-.03	.06
Questions (test 2) where the order is like English (Pos L1 Transfer)	-.10	.35	.43
Questions (test 2) where the order is like Spanish (Pos L2 Transfer)	-.025	-.36	.21

Table 54: means by level for the sub-sections of the judgement and production tasks for clitic pronouns.

	Beginners (Spanish) n=35	Inter. n=19	Advanced n=9
Non-Spanish-like incorrect sentences	-.14	.24	.79
Non-Spanish-like correct sentences	.15	-.54	-.04
Spanish-like incorrect sentences	-.05	-.18	-.44
Spanish-like correct sentences	.12	-.09	.29
Qu. 1-3, non-Spanish-like <i>ser</i> .	-.10	-.33	-.11
Qu. 4-9, Spanish-like <i>ser/estar</i> .	.21	.09	.43

Table 55: means by level for the sub-sections of the judgement and production tasks for *ser/estar*

9.5 Testing Hypothesis 8

Recall that I hypothesised that subjects would transfer significantly more from L2- L3 than from L3 to L2. In other words, they would prefer to transfer from the language in which they were more proficient. This was tested using a 3-way repeated measures ANOVA, comparing performance in the Portuguese Judgement Tasks with performance in the Spanish Judgement Tasks, with Language, Grammatical Feature, and Type of transfer as the within-subjects factors. There were no significant differences - suggesting that, contrary to expectations, transfer is bidirectional.

	Spanish (L3 > L2) n = 55	Portuguese (L3 > L2) n = 60
Clitics - Pos L2/3	-.10	.04
Clitics - Neg L2/3	-.03	-.10
Ser/ Estar - Pos L2/3	-.08	-.11
Ser/ Estar - Neg. L2/3	-.00	.10

Table 56: means of z scores for Spanish and Portuguese judgement tasks for the structures to be compared

The test was repeated, this time as a mixed design ANOVA, taking each level separately as an additional, between subjects factor. There were still no significance differences for language alone, nor were there any interaction effects involving language.

Effect	F	DF	significance of F (p < 0.05)
Language (Spanish or Portuguese)	.01	1, 53	.91 (ns)
Grammatical feature	.01	1, 53	.94 (ns)
Type of transfer (neg/pos)	.20	1, 53	.66 (ns)
Interaction effect: Language by Gram. Feature	.21	1, 53	.65 (ns)
Interaction effect: Language by Type of transfer (neg/pos)	.23	1, 53	.63 (ns)
Interaction effect: Language by Gram. Feature by Type of transfer	1.55	1, 53	.22 (ns)

Table 57: results of ANOVA comparing responses (measured in terms of z scores) of learners to the Portuguese and Spanish Judgement Tasks.

	Beginners (n = 30)	Intermediate (n = 20)	Advanced (n = 6)
Clitics - Spanish-like, correct	-.06	-.21	-.05
Clitics - Spanish-like, incorrect	-.23	.32	.68
Ser/ Estar - Spanish-like, correct	.07	-.02	.12
Ser/ Estar - Spanish-like, incorrect	.03	-.20	-.53

Table 58: means of z scores for Portuguese judgement tasks for the structures to be compared across the different levels.

	Beginners (n = 30)	Intermediate (n = 20)	Advanced (n = 6)
Clitics - Portuguese-like, correct	-.37	.02	.78
Clitics - Portuguese-like, incorrect	-.28	.22	.69
Ser/ Estar - Portuguese-like, correct	-.14	-.14	.60
Ser/ Estar - Portuguese-like, incorrect	-.04	.34	-.26

Table 59: means for Spanish judgement tasks for the structures to be compared across the different levels.

One of the most interesting points to note here in connection with the Spanish task is that although there is an overall improvement in performance, there is a dip in

performance for the advanced students (admittedly only 9) on the *ser/estar* sentences where incorrect judgements could reflect negative transfer from

Effect	F	DF	significance of F ($p < 0.05$)
Level	2.62	2,51	.08 (ns)
Language (Spanish or Portuguese)	.73	1, 51	.39(ns)
Grammatical feature	4.14	1, 51	.05 *
Type of transfer (neg/pos)	.01	1, 51	.93 (ns)
Interaction effect: Level by Language	1.37	2, 51	.26 (ns)
Interaction effect: Level by Grammatical feature	9.72	2, 51	.00 **
Interaction effect: Level by Type of transfer (neg/pos)	1.28	2,51	.29 (ns)
Interaction effect: Language by Gram. Feature	.09	1,51	.77 (ns)
Interaction effect: Language by Type of transfer	.06	1, 51	.80 (ns)
Interaction effect: Gram. Feature by Type of transfer	4.60	1, 51	.04 *
Interaction effect: Level by Language by Gram. Feature	.12	2, 51	.88 (ns)
Interaction effect: Language by Gram. Feature by Type of Transfer	2.63	1, 51	.11 (ns)
Interaction effect: Level by Language by Type of Transfer	1.04	2, 51	.36 (ns)
Interaction effect: Level by Gram. Feature by Type of transfer	2.79	2, 51	.07 (ns)
Interaction effect: Level by Language by Gram. Feature by Type of transfer	1.84	2, 51	.17 (ns)

Table 60: results of ANOVA comparing responses (measured in terms of z scores) of learners to the Portuguese and Spanish Judgement Tasks, across the three levels.

Portuguese. Recall that something similar also occurred for the Portuguese judgements. Could it simply be that greater indeterminacy occurs at a later stage for this structure? Also, interestingly, for the beginners, the *ser/estar* structure seems to be the easier, the one on which they score higher, whereas for the advanced students the reverse is true. The four scores for the clitic pronoun sentences form a block at the bottom of the scores for the beginners; for the advanced group they form a block at the top of the scores. One might speculate that restructuring occurs **sooner** for this structure: they may find initial confusion when confronted with the more complex Portuguese clitic placement rules, overcome by the final year of Spanish study.

Whereas any influence of Portuguese may come into play at a later stage with the less salient *ser/estar* structure - a U-shaped curve, perhaps, which still has to reach the far side.

9.5 Summary

Results regarding hypothesis 1 were patchy. Certainly, no claims can be made for across-the-board transfer. For the clitic pronoun judgement task, there is some evidence that Spanish knowledge has an effect in helping to avoid L1 transfer. For the production tasks, there were no significant differences, although there was the odd phenomenon of non-Spanish speakers scoring higher than Spanish speakers on sentences requiring Spanish-like orders. For the *ser/estar* judgement task, on the other hand, there is some evidence that knowing Spanish is likely to lead to erroneous judgements regarding both verbs. For the production tasks, Spanish knowledge also helped with the sentences requiring Spanish-like use and hindered with those requiring non-Spanish-like use. To sum up, these learners behaved according to prediction to a large extent with the existential verb structure, but less so with the clitics.

With this experiment there was no significant difference between the amount of transfer occurring in the judgement task and in the controlled production task (Hypothesis 2). Regarding Hypothesis 3, there was no significant difference between the amount of transfer for the syntactic structure (clitics) and for the semantic structure (*ser/estar*) in the judgement tasks. In the production tasks, as I had suspected, there was significantly more L2 transfer (both positive and negative) with the semantic structure than with the syntactic structure.

Regarding Hypothesis 4, for clitics there is a marked improvement across levels for judgements involving rejection of incorrect Spanish-like structures - in other words, a significant decrease in L2 negative transfer. For the *ser/estar* structure, there was a marked improvement in performance on judgements involving rejection of incorrect non-Spanish-like usage (increase in L2 positive transfer), and a marked deterioration for judgements involving acceptance of incorrect Spanish-like use of *estar* (increase in L2 negative transfer). Interestingly, this latter is just the opposite of

what happened with the clitics, and led us to surmise that L2-L3 semantic transfer might take longer to eradicate than L2-L3 syntactic transfer. In several cases, with sentences instantiating possible positive transfer, there was a dip at the Intermediate level (in some cases a significant one), which I interpreted as maybe representing restructuring: a judgement at Beginners' level might represent positive transfer, while a seemingly identical judgement at Advanced level might indicate acquisition of the structure. With the production tasks, there appeared to be no significant differences by level; it is interesting that there should be more fluctuation in knowledge/competence than in performance.

Finally, regarding directionality of transfer (hypothesis 8), there appeared to be no significant differences between scores on the Portuguese and Spanish judgement tasks for the equivalent structures. In other words, transfer appears to be bi-directional.

CHAPTER 10: RESULTS AND DISCUSSION - AFFECTIVE FACTORS

In this Chapter, I consider the results pertaining to the affective variables of motivation and attitudes to the target culture. It may appear eccentric to link affect and attitudes with individual structures, but, as described in Section 7.1, the aim is to demonstrate (albeit tentatively) that there are differences between individuals in terms of the amount of recourse to L2, and that deciding factors may include how positive or negative that individual's attitudes may be towards the target culture, and what type of orientation she has towards learning the target language(s).

10.1 Testing Hypotheses 5 and 6

Recall that I hypothesised that students with a more positive attitude to Iberian culture would transfer more from L2 to L3 while those with a more negative attitude would transfer more from L1 to L3. This hypothesis was tested using two separate data sets: the data from the questionnaires and the data from the Semantic Differential Scale, both as described in Section 7.4.¹

10.1.1 The Questionnaire Data

Descriptive analysis was performed on the questionnaires, i.e. mean, standard deviation, range, minimum and maximum for each item. Each item was deemed to show a sufficient range of responses, so none was discarded. As described in Section 7.4.3.6, the attitude questionnaire was considered to effectively consist of two questionnaires, one determining whether the subject had a positive attitude to Iberian culture, and one determining whether the subject had a preference for Iberian culture over her own. However, when scores on the two questionnaires were correlated there was found to be a highly significant association between them ($p = .0001$), suggesting that they could be treated as one and the same questionnaire for the purposes of analysis. Subsequently, a factor analysis was performed, to group

¹ It is worth noting that there was a case of boycott (cf Ake, 1982) in the case of one student who refused to answer both the questionnaire ("this questionnaire offends my intelligence") and the Semantic Differential ("I couldn't possibly assess a nation on the basis of a few given adjectives") Ironically, the data from a subject of this type (clearly sensitive and anti-stereotyping, and probably possessed of positive attitudes to the target culture) could have been very valuable.

the individual questions together into clusters which might reflect the underlying component attitudes which constitute a positive or a negative attitude to the target culture(s). The set of 37 questions was reduced to 13 factors:

10.1.1.1. Factors

Most of the factors actually combined questions reflecting a positive or negative attitude to Iberian culture with other questions reflecting a preference for one culture (Iberian or British) over the other - supporting the notion that the two constructs are not as separate as I had anticipated.

Factor 1 is a combinator of the following:

- 3. Spain and Portugal are intrinsically less democratic nations than Britain.
- 4. Spain and Portugal have produced no playwrights comparable with Shakespeare.
- 18. The Iberians' strong religious faith is a positive force in the modern world. (-)
- 28. Iberians are less rational than Northern Europeans in their approach to life.
- 29. Politically, Iberians tend to need a strong leader rather than a parliamentary democracy.

This seems to reflect a negative belief that Spanish/Portuguese people have an authoritarian mentality (3 and 29), coupled with a lack of a questioning or creative streak (4 and 28). The negative loading on 18 suggests that their religion might be a negative, and therefore a repressive, again authoritarian, force. Thus, we could call Factor 1 [**+ authoritarian, - questioning**]. Four out of five of the questions involve an explicit comparison with British people/culture, to the detriment of Iberia.

Factor 2

- 2. Iberian people have more "joie de vivre" than British people.
- 13. The Spanish and Portuguese are less conformist than the British.
- 21. We can learn interesting ways of cooking, serving food and entertaining from Iberian people
- 27. Spanish and Portuguese people set a good example for us by their attitudes to family life.

36. I would rather live in Spain or Portugal than in Britain.

This combination of items would suggest a positive attitude towards, indeed a preference for, various aspects of **Iberian lifestyle**.

Factor 3

6. Spaniards tend to be rather cruel and bloodthirsty, compared with British people.

17. There is a certain lack of creativity in the Iberian mentality.

37. Spanish and Portuguese people are rather superficial in their friendships

These items seem to reflect a negative feeling towards the Iberian **personality** - that it is perhaps in some ways **dysfunctional**.

Factor 4

15. On the whole, Iberians tend to be better-looking and better-dressed than the British.

34. Children are more appreciated in Spanish and Portuguese culture than in our own.

35. Iberian people are generous and hospitable to strangers.

This factor appears to couple together positive beliefs in Iberians' external **attractiveness** (15) and their **openness** in dealings with others (34 and 35).

Factor 5

12. The Spanish and Portuguese are less racist than the British.

26. Although geographically part of Europe, Spain and Portugal are economically and socially third-world countries.

38. Britain would be a better country if more Spanish and Portuguese people came to live here.

This factor seems to reflect a kind of positive, **non-racist** factor (12 and 38); at first sight, 26 seems slightly anomalous, as it was judged to be a statement of negative

attitude in the piloting; but does not seem inconsistent in fact if we assume that non-racist subjects would not regard belonging to the third world as at all negative.

Factor 6

14. Only a country like Spain could have produced a phenomenon like the Spanish Inquisition.

33. Iberian people do not have the same respect for individual privacy as British people

24. Iberian people are very dependable. (-)

14 and 33 might reflect a negative view that Iberians are **conformist**, and **anti-individualist**; oriented towards the collectivity rather than the individual. The negative loading on 24 also implies a belief that responsibility between individuals is not accorded significance in this society.

This factor is somewhat akin to Factor 1.

Factor 7

22. Iberians are much more polite than most British people.

30. Spanish and Portuguese culture is very sexist in its treatment of women.

31. Iberian women are inhibited in their dealings with the opposite sex.

30 and 31 suggest a belief that Iberians hold old-fashioned, sexist views on the treatment of women, while 22 (considered a statement of positive attitude in the piloting) might reflect a more generalised formality in one's dealings with others; overall, this factor might be called a **conservative attitude to social interaction**.

Factor 8

5. "Don Quijote" has far more universal relevance than any novel written in Britain at the same time. (c. 1600)

9. Spanish art, both classical and modern, is amongst the finest in the world.

19. Iberians have every reason to be proud of their race and their traditions.

These items seem to reflect a positive belief that Iberian society is **highly cultured**.

Factor 9

20. It would not be surprising if Spain and Portugal had higher crime rates than Britain

23. In the long run, Spain and Portugal will prove to be a burden on the E.E.C.

32. Iberian people have more respect for old people than British people. (-)

All these items point to a negative belief that Iberians are rather **feckless** as a people, in comparison with British people.

Factor 10

8. Spain and Portugal are nice places to go for a holiday, but not to live in.

11. Spain and Portugal are rather backward, scientifically and technologically

16. Iberian society is less class-ridden than British. (-)

8, and 11 suggest a general negative view of Iberian **society**. Likewise, the negative loading on 16 suggests that part of this negative view includes a belief that it is a more class-ridden society than Britain.

Factor 11

1. Spanish and Portuguese people are more **extrovert** than British people

This was judged to be a positive statement in the initial piloting.

Factor 12

7. Spanish and Portuguese seem to be rather richer, more expressive languages than English.

25. British children can learn much of value by associating with Spanish and Portuguese playmates.

These items in combination may reflect a positive belief that Iberians **place a high value on interpersonal communication.**

Factor 13

10. The Iberian peninsula contains a very rich **diversity of cultures.**

To sum up, a positive attitude to Spanish and Portuguese culture appears to consist of Factors 2, 4, 5, 8, 11, 12 and 13, whereas 1,3,6,7,9, and 10 are the components of a negative attitude.

10.1.1.2 Multiple Regression Analysis

To test the hypotheses, a step-wise multiple regression analysis was performed, taking these 13 factors as the independent variables, and each sentence-type, for both production and judgement tasks, as the dependent variables. Non-native speakers of English and learners of Brazilian Portuguese were excluded from the analysis, as were learners with no previous knowledge of Spanish.

10.1.1.2.1 Judgement tasks - clitics

For the items which could be accurately judged to be correct using the L2 rule (i.e. sentences with pre-verbal clitics used appropriately) :

Factor 10 (negative view of society) had a significant negative connection ($R^2 = .10$, $F = 5.71$, $df = 1, 51$, $p = .02$) A significant amount of the variance is accounted for by this variable ($\beta = -.32$, $p = .02$) In other words, those who hold a relatively negative view of Iberian society are less likely to let L2 knowledge lead them to correct judgements. This partially confirms my hypothesis.

For those sentences with pre-verbal clitics used inappropriately, i.e. where application of the L2 rule would lead to acceptance of an inaccurate sentence, hence negative transfer: no variable had a significant connection. This partially disconfirms my hypothesis, as an association between positive attitude and L2 negative transfer had been expected.

For the items which could be accurately judged to be correct using the L1 rule (i.e. sentences with post-verbal clitics used appropriately):

Factor 2 (positive lifestyle) ($R^2 = .12$, $F = 6.86$, $df = 1, 51$, $p = .01$) had a significant negative connection. A significant amount of the variance is accounted for by this variable ($\beta = -.34$, $p = .01$). In other words, learners holding a positive attitude towards Iberian lifestyle are less likely to let their L1 lead them to make correct judgements, and conversely more likely to let their L2 lead them to make incorrect judgements. This partially confirms my hypothesis.

For those items where application of the L1 rule would lead to negative transfer (i.e. sentences with post-verbal clitics used inappropriately):

Factor 10 (negative view of society) ($R^2 = .09$, $F = 4.99$, $df = 1, 51$, $p = .03$) had a significant negative connection. A significant amount of the variance is accounted for by this variable ($\beta = -.30$, $p = .03$). In other words, learners with a negative view of Iberian society are more likely to let their L1 lead them to make inaccurate judgements - to resort to negative transfer, that is. This lends partial confirmation to my hypothesis.

10.1.1.2.2 Judgement tasks - ser/estar

For the items which would be wrongly rejected if the Spanish rule were applied (i.e. sentences correctly using *ser* for permanent location, where its use would be incorrect in Spanish):

Factor 11 (more extrovert than Brits) had a significant positive connection. This variable accounts for a significant amount of the variance ($R^2 = .12$, $F = 6.79$, $df = 1, 51$, $p = .01$). ($\beta = .34$, $p = .01$) In other words, the subjects' score for Factor 11 is in inverse proportion to L2 negative transfer. This partially disconfirms the hypothesis, as a positive attitude had been expected to correlate with L2 negative transfer; however, if correct acceptances of the non-Spanish-like structure are attributed to L3 acquisition, this finding need not be dismissed as illogical.

For those items involving *ser* incorrectly used for temporary situations, where its use would also be incorrect in Spanish; in other words where acceptance might indicate L1 negative transfer (*ser* as default), and rejection might reflect application of the L2 rule (positive L2 transfer): no variable had a significant connection. This partially disconfirms the hypothesis, as positive attitude had been expected to correlate with positive L2 transfer.

For those items where application of the L2 rule would lead to negative transfer (i.e. sentences using *estar* for permanent location, where its use would be correct in Spanish):

Factor 2 (positive view of lifestyle) had a significant negative connection ($R^2 = .10$, $F = 5.70$, $df = 1,51$, $p = .02$) A significant amount of the variance is accounted for by this variable ($\beta = -.39$, $p = .00$). In other words, people with a positive view of Iberian culture would be less likely to make accurate judgements - in other words, more likely to use negative transfer from L2 Spanish on this structure. This lends partial confirmation to the hypothesis.

Factor 11 (more extrovert than the British), on the other hand, has a significant positive connection. ($R^2 = .18$, $F = 5.66$, $df = 2,50$, $p = .01$) ($\beta = .30$, $p = .03$). At first sight, this would appear contradictory, unless for this correlation, we attribute correct judgements to L3 acquisition rather than lack of L2 transfer. Recall that this factor also correlated positively with correct judgements on non-Spanish-like *ser*, which I also connected with L3 acquisition.

For the items which could be accurately judged to be correct using the L2 rule (sentences using either *ser* or *estar* in Spanish-like ways): no factor had a significant connection. This partially disconfirms the hypothesis, as positive attitude had been expected to correlate with positive L2 transfer.

10.1.1.2.3 Production Tasks: Clitics

For the items which could be answered correctly using the L1 rule (i.e. sentences requiring a post-verbal clitic):

Factor 4 (attractiveness, openness) had a significant negative connection. ($R^2 = .16$, $F = 10.23$, $df = 1, 52$, $p = .00$) ($\beta = -.49$, $p = .00$)

Factor 9 (feckless) had a significant negative connection ($R^2 = .26$, $F = 9.19$, $df = 2, 51$, $p = .00$) ($\beta = -.31$, $p = .01$)

Factor 11 (more extrovert than Brits) had a significant positive connection. ($R^2 = .32$, $F = 7.94$, $df = 3, 50$, $p = .00$) ($\beta = .24$, $p = .04$)

A significant amount of the variance is accounted for by these variables.

In other words, someone who viewed Iberians as attractive, open, and feckless (a not inconceivable combination, even if the last characteristic is usually regarded as negative) would be less likely to provide a correctly-placed post-verbal clitic, thus less likely to transfer positively from L1 English, or conversely more likely to transfer negatively from L2 Spanish. This partially confirms the hypothesis.

Conversely, someone who viewed Iberians as extrovert would be more likely to provide a correctly-placed post-verbal clitic, thus more likely to transfer positively from L1 English, or conversely less likely to transfer negatively from L2 Spanish.

This appears to partially disconfirm the hypothesis, unless we suggest that - in the case of this factor - we are dealing with L3 acquisition rather than L1 positive transfer, as we did when discussing the positive correlation of Factor 11 with correct judgement of non-Spanish-like *ser* on the *ser/estar* judgement task.

For the items which could be answered correctly using the L2 rule (i.e. sentences requiring a pre-verbal clitic):

Factor 13 (rich diversity of cultures) ($R^2 = .14$, $F = 8.56$, $df = 1, 52$, $p = .00$) ($\beta = -.38$, $p = .00$)

and Factor 5 (non-racist) ($R^2 = .21$, $F = 6.80$, $df = 2, 51$, $p = .00$) ($\beta = -.26$, $p = .04$) both had a significant negative connection.

A significant amount of the variance is accounted for by these two variables

In other words, someone who viewed Iberians as non-racist and possessing a rich diversity of cultures would be less likely to provide a correctly-placed pre-verbal clitic, thus less likely to transfer positively from L2 Spanish, or conversely more

likely to transfer negatively from L1 English. This finding is very puzzling, as it had been hypothesised that L2 transfer would correlate with positive attitudes.

10.1.1.2.4 Production Tasks: *ser/estar*

For the items which could be answered correctly using the L2 rule (i.e. sentences requiring a Spanish-like use of *ser* or *estar*):

Factor 10 (negative view of society) had a significant negative correlation . ($R^2 = .08$, $F = 4.71$, $df = 1,52$, $p = .03$) ($\beta = -.29$, $p = .03$)

A significant amount of the variance is accounted for by this variable

In other words, a learner with a negative view of Iberian society is less likely to provide a correct verb where the rule resembles Spanish, that is, she is less likely to resort to L2 positive transfer. This appears to partially confirm my hypothesis.

For the items which would be answered incorrectly using the L2 rule (i.e. sentences requiring the use of *ser* for permanent location):

Factor 11 (more extrovert than British people) has a significant positive connection. ($R^2 = .12$, $F = 7.38$, $df = 1,52$, $p = .01$)

A significant amount of the variance is accounted for by this variable ($\beta = .35$, $p = .01$). In other words, people who regard Iberian people as more extrovert than British people are more likely to correctly supply *ser* in a context where its use would be incorrect in Spanish - in other words, they are less likely to resort to L2 negative transfer; or perhaps, as suggested with the equivalent judgement task, they are more likely to acquire the L3 rule (in which case, this does not necessarily disconfirm the hypothesis). In fact, this is the fourth occasion on which considering Iberians more extroverted than British people seems to be associated with putative acquisition of the target structure.

10.1.1.3 Summary

To sum up, there is no one factor among those involved in making up attitude to Iberian culture, which correlates across the board with transfer (whether L1 or L2) into Portuguese. However, there were some interesting individual findings.

10.1.1.3.1 Positive factors

We had expected factors reflecting positive attitudes to correlate positively with occurrence of L2-L3 transfer, and negatively with occurrence of L1-L3 transfer. Factor 2, positive view of lifestyle, correlated negatively with positive L1 transfer with clitic pronoun judgements and also negatively with correct rejections of items involving *estar* used incorrectly for permanent location (instantiating negative L2 transfer). This was as predicted.

Factor 4, attractiveness/openness correlated negatively with scores on production tasks involving supplying post-verbal clitics, that is, with positive L1 transfer (as predicted)

There are some (at first sight) puzzling results with Factor 11, more extrovert than British, which correlated positively with correct judgements involving non-Spanish-like use of *ser* (that is, L1 positive transfer or acquisition of target), and with correct judgements of Spanish-like incorrect use of *estar* (that is, lack of L2 transfer), and with correct production of post-verbal clitics (L1 positive transfer) and with lack of L2 negative transfer in production of *estar*. All this sounds rather contradictory, unless in each case we interpret the factor as correlating with L3 acquisition rather than with some form of transfer.

Less explicably, unless there is a connection between these positive attitudes and confusion about the rule, Factor 5, lack of racism, and Factor 13, rich diversity of culture, correlated negatively with positive L2 transfer on clitic production (contrary to prediction)

10.1.1.3.2 Negative factors

Factor 9 correlated negatively with scores on production tasks involving supplying post-verbal clitics, that is, with positive L1 transfer. This seems contrary to prediction, except that it seemed to cluster with Factor 4 (openness, attractiveness), and it was suggested that the two factors, and the attitudes they represent, might actually coexist.

Factor 10, negative view of society, correlates negatively with positive L2 transfer in clitic pronoun judgements, and also with correct judgements of sentences reflecting negative L1 transfer regarding the same structure. It also correlates negatively with

positive L2 transfer in the *ser/estar* production task. All this is according to prediction.

It should be very much borne in mind that, of course, multiple regression analysis belongs to the group of statistics which can only reveal correlations between variables and cannot establish cause-and-effect relations. This is why we are speaking throughout this section of connections, not causes.

10.1.2 Semantic Differential Scale

The (previous-Spanish-speaking) subjects’ responses to the Semantic Differential Scale were used to divide them into three groups: those for whom Portuguese people came closest to the ideal person (22 subjects) (henceforth "Portuguese-oriented"), those for whom the nearest were Spanish people (23 subjects) (henceforth "Spanish-oriented"), and those who judged British people to be the closest (9 subjects) (henceforth "British-oriented"). It is interesting that the latter group was much the smallest, which perhaps hints at a certain tendency towards *anomie* in those who choose to specialise in languages at university level.

The scores for the three groups on each of the tasks were compared using ANOVA tests, to ascertain whether preference for a particular nationality had any significant effect on the amount of transfer taking place.

10.1.2.1. Judgement tasks

For each of the grammatical features, a 3-Way mixed design ANOVA was carried out, with source of transfer and type of transfer as the within-subject variables, and “nationality closest to the ideal personality” as the between-subjects variable.

Sub-section	Means for Portuguese “ideal” group (n = 23)	Means for Spanish “ideal” group (n = 22)	Means for British “ideal” group (n = 9)
Questions 1-6 Positive L2 transfer	-.04 (range: -2.02 - 1.28)	-.27 (range: -1.80 - 1.06)	-.52 (range: -4.00 - 1.28)
Questions 7-12 Negative L2 transfer	.13 (range: -1.26 - 1.59)	-.14 (range: -1.68 - 1.59)	.62 (range: -.40 - 1.59)
Questions 13-18 Positive L1 transfer	.17 (range: -.80 - 1.44)	-.14 (range: -2.29 - 1.44)	.58 (range: -.96 - 1.44)
Questions 19-24 Negative L1 transfer	-.03 (range: -2.11 - 1.88)	.07 (range: -1.59 - 1.71)	-.35 (range: -1.76 - 1.88)

Table 61: mean z scores for clitic pronoun judgement task by group according to which nationality is closest to the “ideal” person.

For the clitics, post hoc comparison of means revealed that on the English-like (with post-verbal clitics) correct items, British-oriented subjects were able to make significantly more accurate judgements than Spanish-oriented subjects (they also scored higher than Portuguese-oriented subjects, but the difference was not significant). On the items where the clitic is incorrectly placed pre-verbally, i.e. where acceptance could reflect L2 negative transfer, British-oriented subjects again scored significantly higher than Spanish-oriented subjects (and higher, but not significantly, than Portuguese-oriented subjects). In other words British-oriented subjects scored significantly higher than Spanish-oriented ones on the items where Spanish knowledge could lead to inaccurate judgements. On the items where Spanish knowledge could be helpful, and lead to accurate judgements, on the other hand, the British-oriented subjects scored lower than either Spanish-oriented or Portuguese-oriented ones, but not significantly.

Within-group comparisons of means were also made. It was found that the Spanish-oriented and Portuguese-oriented groups' scores were more homogeneous. The differences between their scores on the different items were not significant. With the British-oriented group on the other hand, the differences were quite striking: they scored significantly higher on those sets of items where English knowledge would help them (i.e. in accepting correct English-like post-verbal clitics; and in rejecting incorrect Spanish-like pre-verbal clitics) than on those items where Spanish would help (i.e. where the correct response would be rejection of incorrect English-like post-verbal clitics, and acceptance of correct Spanish-like pre-verbal clitics). This is one of the most exciting findings of this study.

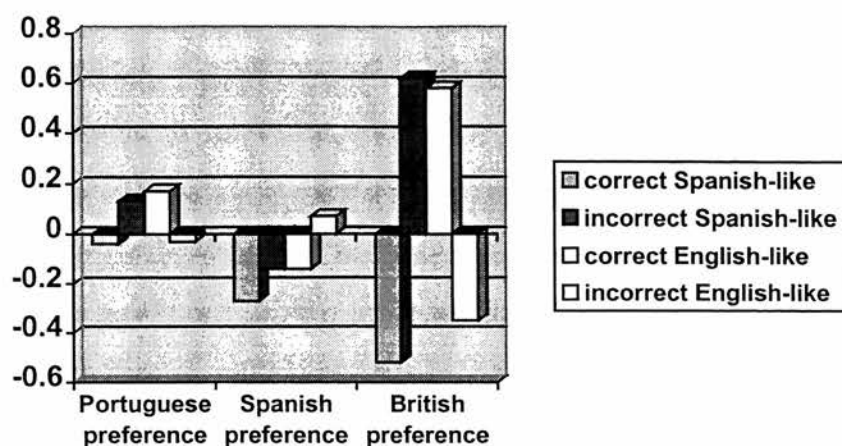


Chart 8: bar graph showing scores for the three nationality-orientation groups on the clitic pronoun judgement task.

The results of the relevant post-hoc comparisons of means are laid out in Table 62.

For the existential verb structure there was no main effect of which nationality comes closest to the ideal ($F = .65$, $df = 2,51$, $p = .53$), nor were there any interaction effects.

	D	E	G	I	J	K	L
A) Spanish-oriented; L1 positive transfer sentences. Mean = -.14		2.21 (ns)		5.14 *			
B) Spanish-oriented; L1 negative transfer sentences. Mean = .07	2.43 (ns)				3.00 (ns)		
C) Spanish-oriented; L2 negative transfer sentences. Mean = -.14							5.43 *
D) Spanish-oriented; L2 positive transfer sentences. Mean = -.27							
E) Portuguese- oriented; L1 positive transfer sentences. Mean = .17			1.5 (ns)	2.93 (ns)			
F) Portuguese- oriented; L1 negative transfer sentences. Mean = -.03							
G) Portuguese- oriented; L2 positive transfer sentences. Mean = -.04						3.42 (ns)	
H) Portuguese- oriented; L2 negative transfer sentences. Mean = .12							3.57 (ns)
I) British-oriented; L1 positive transfer sentences. Mean = .58					6.64*	7.86*	
J) British-oriented; L1 negative transfer sentences. Mean = -.35							
K) British-oriented; L2 positive transfer sentences. Mean = -.52							
L) British-oriented; L2 negative transfer sentences. Mean = .62					6.93*	8.14*	
Df= 50 k = 7 critical value of q = 4.35 n = 35 $MS_{\text{error}} = .72$							

**Table 62: results of Tukey test for sub-sections of the judgement tasks - clitic pronouns
- showing value of Student's q .**

Sub-section	Means for Portuguese “ideal” group (n = 23)	Means for Spanish “ideal” group (n = 22)	Means for British “ideal” group (n = 8)
Correct items reflecting Spanish-like rule (positive L2 transfer)	.12 (range: -1.89 - 1.09)	-.16 (range: -1.89 - 1.09)	.33 (range: -1.59 - 1.08)
Incorrect items reflecting Spanish-like rule (negative L2 transfer)	-.20 (range: -1.15 - 1.82)	-.19 (range: -1.15 - 1.41)	.00 (range: -1.15 - 2.09)
Correct items reflecting non-Spanish-like rule (positive L1 transfer??)	-.18 (range: -2.09 - 1.35)	-.02 (range: -2.09 - 1.35)	-.11 (range: -1.88 - 1.35)
Incorrect items reflecting non-Spanish-like rule (negative L1 transfer??)	.03 (range: -2.20 - 1.59)	-.12 (range: -3.02 - 1.59)	.22 (range: -1.21 - 1.59)

Table 63: mean z scores for *ser/estar* judgement task by group according to which nationality is closest to the “ideal” person.

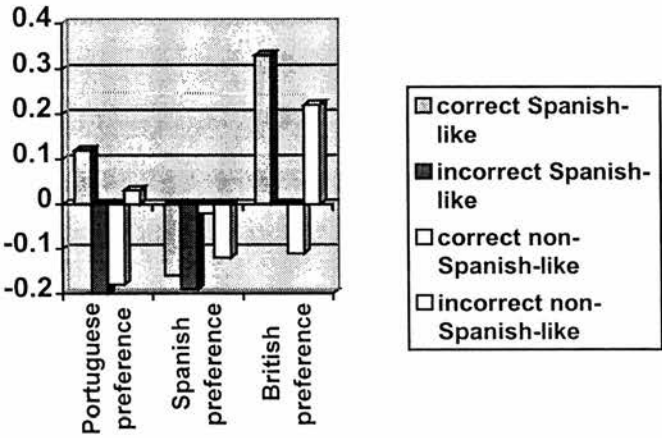


Chart 9: bar graph showing scores for for the three nationality-orientation groups on the *ser/estar* judgement task.

10.1.2.2 Production tasks

For each of the grammatical features, a 2-Way mixed design ANOVA was carried out, with source of transfer as the within-subject variable, and “nationality closest to the ideal personality” as the between-subjects variable. For the production tasks there were no significant differences between the three groups, either with the clitic pronoun task ($F = .21$, $df = 2, 51$, $p = .81$) or with the *ser/estar* task ($F = .15$, $df = 2, 52$, $p = .86$). With the latter there was a near significant effect for whether or not the structure resembled Spanish, with all groups scoring higher for the Spanish-like structure ($F = 3.64$, $df = 1, 52$, $p = .06$).

	Portuguese (n = 23)	Spanish (n = 23)	British (n = 8)
Clitics: Items with Spanish -like order	-.15 (range: -3.15 - 1.21)	-.28 (range: -3.15 - 1.20)	.03 (range: -1.70 - 1.21)
Clitics: Items with English -like order	.07 (range: -1.26 - .87)	.19 (range: -1.26 - .87)	.25 (range: -1.26 - .87)
<i>ser/estar</i> : Spanish-like rule	.30 (range: -.60 - .55)	.20 (range: -1.75 - .55)	.04 (range: -1.75 - .55)
<i>ser/estar</i> : non-Spanish-like rule	-.31 (range: -.95 - 1.24)	-.03 (range: -.95 - 1.25)	-.05 (range: -.95 - 1.25)

Table 64: means for the production tasks for the three attitudinal groups as defined by the semantic differential questionnaire.

For the semantic differential task, therefore, the most interesting finding was related to the clitic pronoun judgement task, where there did indeed appear to be a connection between preference for one particular nationality and the occurrence of transfer.

10.2 Motivation

I shall begin this section with some general comments about the degree and type of motivation avowed by these subjects.

It is clear from the figures that a noticeably greater number of students profess instrumental motivation than integrative. I decided to investigate whether there was any effect of level here, suspecting that there might be an increase in integrative motivation as students chose to continue the subject further on into their university careers, and especially among those who had spent some time in a Portuguese-speaking country.

As level and motivation type are both nominal variables, this hypothesis was tested using a chi-square. In fact the differences between the observed and the expected frequencies were not significant (*chi-square* = 3.89, *df* = 4, *critical value of chi-square* = > .50) so I concluded that for this type of learner, type of orientation does not in fact change with increased proficiency and knowledge of the culture. I was also interested to examine whether there was an effect of Spanish knowledge, expecting that those non Spanish-specialists who chose to study Portuguese might have a special interest in the language/culture rather than just

	Beginners - non-Spanish- speaking (n=10)	Beginners - Spanish- speaking (n=33)	Intermediate (n=21)	Advanced (n=9)
Integrative motivation (n=15)	3	6	6	0
Non- integrative motivation (n=51)	5	25	13	8
Mixed (n=6)	2	2	1	1

Table 65: different motivation types across levels. Non-N.S. and speakers of Brazilian Portuguese excluded.

doing it as an "extra" language to complete their degree. Again I tested this hypothesis using a chi-square; again the differences between the observed and the expected frequencies were not significant ($\chi^2 = 2.83$, $df = 2$, *critical value of $\chi^2 = < .25$*); so it would appear that my hypothesis was once more wrong. There were no significant differences between the patterns of orientation type for the Spanish-speakers and for those who approached Portuguese from a different "direction"².

10.2.1 Testing Hypothesis 7

Recall that I hypothesised that subjects professing integrative orientation would transfer significantly more from L2-L3 than from L1, and conversely, that subjects professing instrumental or cognitive motivation would transfer more from L1 than from L2. I further hypothesised that integratively-oriented students would transfer more from the L2 than instrumentally-oriented students, and that instrumentally-oriented students would transfer more from the L1 than integratively-oriented students To test both of these hypotheses, I first carried out a 3-Way mixed design ANOVA, comparing performance in the Judgement Tasks across the different motivation types, with Motivation type as the between-subjects variable and Source of Transfer and Type of Transfer as the two within-subject variables. The test was performed twice; once for each structure. Only Spanish-speakers were involved; all levels were conflated; learners of Brazilian Portuguese were filtered out for the clitics.

² These were not included among my main research questions, as this difference between motivation-types was an unexpected finding.

Effects	F	DF	significance of F (p < 0.05)
Motivation type	1.80	2, 57	.17
Source of Transfer (L1/L2)	.41	1, 57	.52
Type of transfer (pos/neg)	.05	1, 57	.83
Interaction Effect : Motivation type by Source of Transfer	.59	2, 57	.56
Interaction Effect : Motivation type by Type of transfer	.12	2, 57	.89
Motivation type by Source of Transfer by Type of transfer	.98	2, 57	.38

Table 66: results of ANOVA comparing z scores on the clitic pronoun judgement task across the three motivation types

Effects	F	DF	significance of F (p < 0.05)
Motivation type	.09	2, 60	.91
Source of Transfer (L1/L2)	.43	1, 60	.51
Type of transfer (pos/neg)	.06	1, 60	.80
Interaction Effect : Motivation type by Source of Transfer	.39	2, 60	.68
Interaction Effect : Motivation type by Type of transfer	.11	2, 60	.89
Motivation type by Source of Transfer by Type of transfer	.04	2, 60	.96

Table 67: results of ANOVA comparing z scores on the *ser/estar* judgement task across the three motivation types

Non-native speakers of English were excluded. There was no main effect for motivation-type, for either structure, nor were there any interaction effects (see Tables 65 and 66). There does not, then, appear to be any significant effect of orientation type on cross-linguistic influence at the level of linguistic competence.

The test was repeated separately with level as an additional between-subjects factor, and again there were no significant effects.

Similarly tests were carried out for the production tasks:

Effects	F	DF	significance of F (p < 0.05)
Motivation type	8.04	2, 57	.00**
Source of Transfer (L1/L2)	.03	1, 57	.85 (ns)
Interaction Effect : Motivation type by Source of Transfer	.49	2, 57	.62 (ns)

Table 68: results of ANOVA comparing z scores on the clitic pronoun production task across the three motivation types

Effects	F	DF	significance of F ($p < 0.05$)
Motivation type	.36	2, 63	.70
Source of Transfer (L1/L2)	8.26	1, 63	.01**
Interaction Effect : Motivation type by Source of Transfer	1.38	2, 63	.26

Table 69: results of ANOVA comparing z scores on the *ser/estar* production task across the three motivation types

Interestingly, the effect of motivation type WAS significant for the clitic pronoun task, in that instrumentally motivated students scored higher on every sentence-type, ($F = 8.04$, $df = 2, 57$, $p = .00$) but not for the *ser/estar* task ($F = .36$, $df = 1, 63$, $p = .70$). In other words, motivation could be said to have an effect at the level of controlled performance, but only selectively. There was no interaction effect, in other words, it did not matter whether the influence was from the L1 or the L2. Means for all sentence-types (both tasks) are set out below in Tables 71 (for clitics) and 72 (for *ser/estar*). Post hoc comparison of means was carried out (a Tukey test), excluding the "mixed motivation" group as numbers were so small. The results can be seen in Table 69. This revealed that non-integratively oriented students scored significantly higher than integratively oriented ones on the sentences requiring English-like post-verbal clitic: this sentence-type saw the highest mean score of all (over both tasks) for the non-integratively oriented students and the lowest mean score of all (over both tasks) for the integratively oriented ones. Less explicably, the same non-integratively oriented students also scored higher on the sentences requiring Spanish-like pre-verbal clitics; here, however, the difference did not reach significance, although it approached it. This leads to the alternative explanation that non-integratively oriented students may simply perform better overall in certain areas; as we saw in Section 5.2, some research findings do suggest that instrumental rather than integrative orientation may be an important factor influencing proficiency in a foreign language (as opposed to second language) situation.

When the test was repeated with level as between-subjects factor, the results revealed that the significant main effect for motivation type only held for the Beginners' group ($F = 8.66$, $df = 2,30$, $p < .01$); for the intermediate students, there was no effect.³

	A Integratively motivated students, English-like sentences Mean = -.55	C Integratively motivated students, Spanish-like sentences Mean = -.51
B Non-integratively motivated students, English-like sentences Mean = .35	6.00*	
D Non-integratively motivated students, Spanish-like sentences Mean = .04		3.66 (ns)
Df = 54 k = 4 n = 36 MS _{error} = .82 critical value of q = 3.79		

Table 70: results of Tukey test for selected sub-sections of the production tasks - clitic pronouns, in relation to the two main motivation types, showing value of Student's *q*.

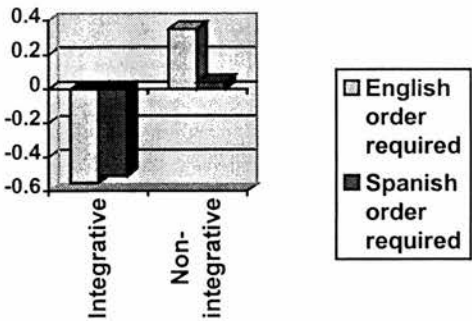


Chart 10: Bar graph showing mean z scores for clitic production tasks comparing the different motivation types

When we come to the *ser/estar* task we no longer see non-integratively motivated students performing better across the board. For sentences requiring Spanish-like use of one of the existential verbs, the integratively- oriented learners scored higher than the non-integratively-oriented ones, whereas for sentences requiring non-Spanish-

³ As with the whole group analysis, there were no integratively motivated students in the advanced group once the Brazilian speaker was excluded, so the analysis was not performed for that level for

like use (i.e. *ser* for permanent location), the reverse is the case. This would have lent some support to my hypothesis, had the differences been large enough to reach significance.

There was, for this task, a significant effect of whether the rule involved was like Spanish or not ($F = 8.26, df = 1,63, p = .01$): post hoc comparison of means (again restricted to the two main motivation groups because of low numbers for the "mixed motivation" group) revealed that for the sentences requiring Spanish-like use of one of the existential verbs, the mean score for integratively-motivated learners was significantly higher than for the sentences requiring non-Spanish-like use; this lends some support to the hypothesis. The non-integratively motivated learners scored higher on the sentences requiring non-Spanish-like use, but the difference was not significant.

	A Integratively motivated students, non- Spanish-like sentences Mean = -1.36	B Non-integratively motivated students, non- Spanish-like sentences Mean = -.03	C Integratively motivated students, Spanish- like sentences Mean = .25	D Non-integratively motivated students, Spanish- like sentences Mean = .18
A				
B	2.75 (ns)			
C	5.08*			
D		1.75 (ns)	.58 (ns)	
Df = 59 k = 4 n = 42 MS _{error} = .58 critical value of q = 3.74				

Table 71: results of Tukey test for selected sub-sections of the production tasks - *ser/estar*, in relation to the two main motivation types, showing value of Student's *q*.

the clitics

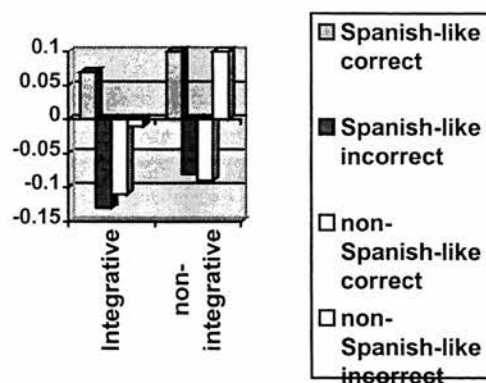


Chart 11: Bar graph showing mean z scores for *ser/estar* production tasks comparing the different motivation

Interestingly, when the test was repeated with level as between-subjects factor, there was a near-significant interaction effect of motivation type by source of transfer ($F = 3.02$, $df = 2,34$, $p = .06$) at the beginners' level; this was not repeated at the higher levels.

	Integrative n=11	Non-integrative n=44	Equal n=2
Questions 1-6 Positive L2 transfer	-.23	-.04	-.54
Questions 7-12 Negative L2 transfer	-.40	.25	-.08
Questions 13-18 Positive L1 transfer	-.18	.17	-.09
Questions 19-24 Negative L1 transfer	.04	.14	-.63
Questions where the order is like English (Pos L1 Transfer)	-.55	.35	-.73
Questions where the order is like Spanish (Pos L2 Transfer)	-.51	.04	-.61

Table 72: mean responses, measured in z scores, to the different sections of the two tasks, across the different types of orientation. Clitics (Brazilian speakers filtered out), Spanish speakers only.

	Integrative n=14	Non-integrative n=44	Equal n=5
Questions Negative L1 transfer	-.01	.10	.06
Questions Positive L1 transfer	-.11	-.09	.18
Questions Negative L2 transfer	-.13	-.08	-.20
Questions Positive L2 transfer	.07	.10	-.04
Qu. 1-3, non-Spanish-like <i>ser</i> . Pos. L1 transfer	-.36	-.03	-.51
Qu. 4-9, Spanish-like <i>ser/estar</i> . Pos. L2 transfer	.25	.18	.32

Table 73: mean responses, measured in z scores, to the different sections of the two tasks, across the different types of orientation. *ser/estar*

The finding that it could be instrumental motivation which correlated even with positive L2 transfer, contrary to expectations, provoked the further question of whether it is STRENGTH rather than type of motivation which leads to more accurate judgements or production. Accordingly, to address this, an OVERALL motivation score was computed combining scores on the integrative questions with scores on the non-integrative ones. These were then compared to the scores on the sub-sections of the different tasks, using multiple regression analysis. All students were included in the analysis. There was a significant correlation with some but not all scores. For the clitic judgements, only the correct, Spanish-like sentences which would be judged accurately using positive L2 transfer correlated significantly with overall strength of motivation ($R^2 = .06$, $F = 4.73$, $df = 1, 78$, $\beta = .24$, $p = .03$). For the *ser/estar* judgements, the significant association only occurred with scores on the incorrect non-Spanish-like sentences - in other words, again where Spanish would help to make an accurate judgement ($R^2 = .08$, $F = .01$, $df = 1, 78$, $\beta = .29$, $p = .01$). For the production tasks, it was only the sentences designed to elicit a Spanish-like use of *ser/estar* where the correlation was significant ($R^2 = .06$, $F = 4.71$, $df = 1, 79$, $\beta = .24$, $p = .03$). As explained above, non-Spanish speakers are included in this analysis. The test was repeated excluding the non-Spanish speakers; this time, curiously, the only sentence-type which correlated significantly with strength of motivation was the correct Spanish-like clitic pronoun sentence type.

10.3 Summary

This study provides some evidence for a selective effect of affective factors - attitude and motivation - on transfer, although it is far from conclusive. The underlying question still remains: by what mechanism do these factors interact with cognitive factors to produce these effects? What is it that goes on differently in the mind of an instrumentally motivated learner than in that of an integratively motivated learner? And equally, what happens differently in the mind of a learner with a positive attitude to the target culture than in that of a learner with a negative attitude?

More investigation of the connection between affective and cognitive factors would be a very worthwhile channel of research to pursue.

CHAPTER 11 PEDAGOGICAL IMPLICATIONS

So far, we have seen that there is some evidence to suggest that L2-L3 transfer does occur, although not consistently with every aspect of both structures under examination; and there is also some evidence that there is a connection between L2-L3 transfer and affective factors like attitude and motivation.

In this chapter, there will firstly be a discussion of the role of classroom instruction in general, followed by an examination of the pedagogical implications of my study for the teaching of Portuguese to speakers of Spanish.

11.1 The Role of Classroom Teaching

I will begin this section by briefly playing "Devil's Advocate", and asking whether there is any point in formal explicit teaching of grammar, or whether the classroom should simply be a place for providing "comprehensible input" as Krashen (1982; 1985) and others have advocated.

Ellis (1990) reviews the research pertaining to the effectiveness of classroom teaching. He begins by citing Long's (1983) influential review article which claims that instruction does make a difference. Ellis has some doubts, feeling that there are other variables involved (motivation, classroom interaction, the individual's sense of security) and that Long does not address the question of the exact nature of the instruction. Looking at more detailed studies, he finds much of the evidence supports the idea that instruction has little effect on the natural acquisition order for grammatical features; moreover, in studies of the effect of explicit teaching on the acquisition of specific features, there appeared to be some effect on planned but not on spontaneous production. However, overall, he does accept the assumption that formal teaching leads to faster and more successful acquisition - with the caveat that informal exposure is also necessary. He quotes Schmidt (1983), who maintains that while naturalistic learners may attain a high level of communicative effectiveness, they rarely achieve the same levels of accuracy as those who have received formal instruction¹. Coppetiers' (1987) near-Native-Speakers of French (cited in Section

¹ Of course, "**formal**" does not necessarily have to denote "classroom"; some otherwise naturalistic learners will be corrected by, or elicit rules from, their interlocutors. Anecdotally, in my own

2.1.2) had combined long exposure with formal study. Yip (1994) outlines various studies - among them Harley and Swain's (1984) evaluation of the French immersion programme in Canada - which suggest that grammatical instruction is essential if accuracy and not just communicative effectiveness is to be an aim.

Ellis goes on to critique the Multi-dimensional Model of Meisel *et al* (1981) and Pienemann (1989), which postulates two kinds of features, developmental (which have to be acquired in a certain order) and variational (which can be acquired in random order); different kinds of learners tend to acquire the latter at different rates, depending on whether their orientation is more towards accuracy or fluency. These researchers claim that instruction can help both in the acquisition of variational features (such as copula verbs), and also with developmental features - but in the latter case, only provided that the learner is **ready** - that is, her interlanguage is close to the stage where the structure would be acquired in a naturalistic setting. Premature instruction in these features can actually interfere with acquisition, whereas variational features can be taught at any point². Lightbown (1985) agrees, citing her own research which suggests that over-early teaching of the progressive *-ing* form slowed down learners' acquisition of that structure.

One major shortcoming in the work of Pienemann and Meisel *et al* pointed out by Ellis is that they do not explain what **kind** of instruction they provided, so we cannot be sure whether it was the instruction *per se* or the nature of the instruction which was unsuccessful in bringing about acquisition. This criticism echoes Lightbown (1985), who calls for research comparing the teaching of the same structure, to the same level of students, by different methods

On the topic of specific structures, Ellis claims that the only features which can be acquired immediately through instruction are those which are simple, both in

naturalistic learning of Portuguese, I became communicatively competent quite rapidly, due to the facilitative effect of knowing Spanish; however, I recall two preposition errors which I continued to make for about 3 years, until in both cases I was corrected by a Portuguese friend. I have not made those errors since. This illustrates both points made above: that certain errors are impervious to input alone; and that instruction can eradicate them. I could add that in both cases, I was erroneously using the Spanish-like equivalent : "seriously": *en serio* (Spanish); *a serio* (Portuguese) *em serio* (my Portuguese interlanguage); "because of": *a causa de* (Spanish); *por cause de* (Portuguese); *a causa de* (my Portuguese interlanguage).

² It should be added that Pienemann nowhere implies that more advanced features should not be

terms of psycholinguistic (or processing) complexity and in terms of form-function mapping. This does rather beg the question of what objective criteria exist to determine simplicity/ complexity. Similarly, Pienemann does not make it very clear, apart from his “copula verb” example, which features count as variational and which as developmental. If these characteristics (simplicity/complexity; variational/developmental) are decisive for acquisition, we need more concrete criteria for classifying the structures to be learnt.

One intriguing question discussed in the literature is that of implicational universals; this involves linguistic universals, be they typological or of the UG kind. The suggestion, for which some research evidence does exist, is that the acquisition of one member of a cluster of features can automatically bring about the acquisition of the associated features - as long as the latter are less complex or less marked; the learner will be able to generalise from the marked to the unmarked form³. This is what Zobl (1983; 1985) calls the "Projection Principle". There would, however, appear to be an irreconcilable contradiction between this position and the developmental one outlined in the previous paragraph, also commented on by Lightbown (1985). Ellis attempts an explanation that could account for both: he talks about the delayed effect of instruction, which he believes can be effective: if a learner is formally "taught" a structure which she is not yet ready to acquire, she may add it to her declarative knowledge, even if she cannot yet process it in the way needed for accurate spontaneous production. The studies dealing with the Projection Principle (Zobl, 1985; Eckman et al, 1988) were based on task-types (like sentence-combining) that tap controlled rather than spontaneous production; perhaps these subjects had acquired these structures into their declarative knowledge, but may not have been ready to use them accurately in free production as yet.

Also writing within the UG paradigm, White (1996) discusses the research regarding the relative effectiveness of different kinds of evidence in helping learners to reset parameters: naturally occurring evidence, explicit positive evidence (i.e. explanation of grammatical rules), and negative evidence (i.e. error correction).

present in the input, just that they should not be actively taught.

³ for example, from more marked to less marked relative clause structures.

Regarding acquisition of adverb placement by French-speaking learners of English, she found that only the group who had received explicit positive evidence and negative evidence recognised the inappropriacy of sentences like * *John watches often television*. Other structures, however, such as position of negation in the VP, appeared to be acquired on the basis of positive evidence alone. The question of which structures can be learnt simply through exposure to samples of language, and which areas of grammar can only be acquired through negative evidence, still remains something of a conundrum. Both this idea and the Projection Principle could clearly have huge implications for syllabus- and materials-design, were they to be developed to a more detailed extent than they are at present.

Do the ideas described above have any application to my own areas of concern, either narrowly, regarding the particular structures under study, or more broadly, considering Spanish > Portuguese L2-L3 transfer?

It is not clear that the "Projection Principle" can be applied to the particular structures of interest. Firstly, regarding clitic pronoun placement: the unmarked form in Portuguese is the post-verbal position (canonical order; occurrence in less complex sentence types) and the marked form is the Spanish-like pre-verbal position; it seems doubtful that learners could be first taught the marked, Spanish-like form, then subsequently generalise, unaided, to the knowledge that the clitic is in fact placed post-verbally in affirmative sentences in Portuguese. Neither, at first sight, does this Principle seem to be applicable to *ser* and *estar*; it would not be logically possible for learners to generalise from the use of *estar* (if we regard this as the marked form) to the use of *ser*, without exposure to the latter. However, it would be interesting to investigate whether, if both verbs were present in the input, and the uses of *estar* were explicitly taught, learners were then able to produce *ser* correctly in appropriate contexts, without explicit teaching of rules. It would also be useful to investigate whether there might be other areas of Portuguese grammar where this Principle might be relevant.

Turning to the suggestion that the natural acquisition order should be reflected as far as possible in the selection of structures for classroom teaching, not enough is known about the natural acquisition order for clitic pronouns in Spanish

and Portuguese for me to be able to extrapolate to the classroom, although research in French L1 acquisition suggesting that pre-verbal clitics are late acquired (see 4.2.2), may well also be relevant for Spanish and Portuguese. In the case of *ser* and *estar*, if we return for a moment to Pienemann's Multi-dimensional Model, it was suggested that copula verbs were variational features - and therefore amenable to instruction. However, in general, one wonders if developmental order continues to be an issue at all, when discussing two such related languages; by which I mean, would a Portuguese learner with Spanish knowledge need to be “ready” in the same way to acquire a structure if it was almost identical to a structure she already knew in Spanish?

On the question of simplicity, as posited by Ellis (1990), I would hold that clitics in Portuguese are quite complex, with their variable order depending on clause-type, and that conversely the *ser/estar* distinction is simpler in Portuguese than in Spanish, as *ser* always corresponds to the concept of “permanent” while *estar* always denotes a temporary situation in Portuguese. Therefore, it SHOULD (according to this criterion) be straightforward for the speaker of Spanish to move to the Portuguese copula verbs, but difficult for her to move to the rules for clitic placement.

As for the kind of evidence needed for acquisition to take place, I would tentatively suggest that for these learners negative evidence may be necessary for some - but not all - structures where Spanish and Portuguese differ. I submit that in some cases what they would notice in the input would be the similarity to Spanish, which might possibly obscure the differences, while in others the differences will actually be rather salient and that positive evidence should suffice. This was certainly my own experience as a naturalistic learner. In the case of clitic pronouns, because the non-Spanish-like order occurs in the least marked sentence type (affirmative declarative), it can be very striking to a learner expecting equivalence. The same is true for the non-Spanish-like use of *ser* for permanent location. There are, however, other structures where the differences are less salient and where negative evidence is probably essential (for an example, see footnote 1 to this chapter).

Finally, a section on classroom instruction would not be complete without

mentioning the question of uptake: i.e. what the learner actually learns, which may be different from what the teacher intended to teach. Slimani (1989, cited in Ellis, 1992) asked students to record on “uptake charts” what items they felt they had learnt, then analysed lesson transcriptions to see where these items had occurred. It seems that the tendency was for these learners to perceive themselves as having learnt items occurring in parts of the lesson that dealt with topics selected by learners rather than by the teacher. This is a salutary finding which certainly supports the current preference for learner-centred teaching.

11.2 A Word on Methods

I have already stated that it is not just a question of whether explicit instruction is provided but also, crucially, what kind of instruction. In this section there will be a brief discussion of some teaching approaches that might be used in this situation. The current consensus appears to be that controlled practice of structures, usually regarded by practitioners as an essential component of grammar teaching, does not help in the acquisition of grammatical knowledge, although it may well have useful spin-offs, such as increasing confidence and improving pronunciation. The discussion will address, firstly, two input-based approaches: consciousness-raising and processing instruction ; classroom contrastive analysis; and translation. The section will conclude with a description of an experiment in the teaching of Spanish to speakers of L2 Italian at Edinburgh University.

11.2.1 Input-based approaches

11.2.1.1 Consciousness-raising

This approach (henceforth C-R) was described and propounded by Sharwood Smith (1981), Rutherford (1987), and Ellis (1992), and can be described as a cognitive method, aiming at enhancing the learner's declarative knowledge rather than production. Teacher and learner together pay attention to grammatical form, without necessarily using technical terms (although some knowledge of metalanguage may speed up the process); and the teacher essentially LEADS the learner to discover the rules for herself, rather than “spoonfeeding” her with them. This latter feature is in

keeping with discovery-learning, problem-solving approaches currently favoured not just in language teaching, but also among educationalists in general. Initially, Rutherford seems to equate C-R with any kind of explicit grammar teaching, which, he rightly points out, stretches back for millenia. However, he goes on to outline the form of C-R that he advocates himself, describing it as “organic” rather than “mechanic” (pp 154-155). By this he means process-oriented, learner-centred, co-operative and with “grammar as facilitator”, as opposed to product-oriented, teacher-centred, competitive, and with “grammar as obstacle”, which is how he views more traditional grammar teaching. In other words, he is actually advocating something quite in tune with many of the tenets of a communicative approach. According to Rutherford (op cit.), it is a question of providing the learners with the essential data for testing hypotheses and forming generalisations “in a somewhat controlled and principled fashion”(18); C-R is “nothing less than the illumination of the learner’s path from the known to the unknown” (21)

For Ellis (1992), C-R is only really of value if it ultimately helps lead to implicit knowledge and thus to an ability to communicate spontaneously in the foreign language. According to Ellis, this acquisition involves three steps: noticing the structure to be learnt, comparing it with other structures already within the learner’s competence, and integrating it into the learner’s knowledge system. C-R can contribute to the first two steps but not directly to the third. However, by helping the student to notice the structure in the input, it can ultimately speed up acquisition. The approach includes a specific role for “negative evidence”, and indeed for White it is specifically those structures which are learnable through negative evidence (like adverb placement - see previous section) which are most amenable to being taught through C-R.

Yip’s (1994) study involves the teaching of ergative verbs, and although her results are inconclusive, they include two examples of what she calls “the best case of C-R; the ‘eureka’ effect of sudden enlightenment” (p.136). The description of what she actually did in the classroom remains tantalisingly vague; she simply tells us that the topic was presented in “problem-solving” terms with some examples and explanation and with the minimum of jargon, which is all very well, but some more

concrete details of her lesson would have been illuminating. She makes an important point in emphasising that affective variables like interest and motivation can have a major influence on the effectiveness of C-R.

It seems appropriate to conclude this section with this expressive quotation from Stevick (1980), an early advocate of C-R:

(Consciousness-raising) casts light on the unfamiliar pathways and the arbitrary obstacles through which (the student) must eventually be able to run back and forth with his eyes shut. It can thus save him a certain amount of time, energy, and barked shins. It is for this reason, of course, that the teacher needs to know these same pathways and obstacles - not only to run back and forth in them for herself, but also to see them as they look to a newcomer. On top of this are the skills of knowing when to turn on the spotlight of (consciousness-raising) and when to turn it off, and knowing just how to aim it so that it will help the student instead of blinding him (251)

11.2.1 2 Processing Instruction

Van Patten (1996) presents a method involving the learning of grammar through processing input:

processing instruction is an input-based, psycholinguistically motivated approach to focus on form....the purpose...is to alter how learners process input and to encourage better form-meaning mapping that results in grammatically richer intake (8)

The intake in turn forms the basis for learners' restructuring of their "developing systems" (his term for Interlanguage). He aims to combine the form-based nature of traditional grammar teaching with the meaning-based nature of the communicative approach into a new and effective way of teaching grammar.

As described by VanPatten, this approach has three key components: explanation of the form-meaning relationship with a given structure; information about processing strategies made explicit to the learner and structured input. The last two need some clarification. All learners use certain strategies to process input, for example, to assume that the first noun in a sentence is the subject, or to rely on adverbials as clues to reveal temporal or aspectual meaning; however they may on occasion be misled by these strategies. In Spanish and Portuguese, to cite a relevant

example, if the object clitic is pre-verbal it may be interpreted as the subject; if there is no adverbial, learners need to know they should attend to the verb ending.

VanPatten's method involves **telling** learners what they normally do and teaching them the necessary alternatives, then giving them samples of input to process for themselves, as practice.⁴ To give just one example, (VanPatten's sample lessons involve Spanish L2 teaching, so his examples are quite relevant to my study):

Mi hermana me llama frecuentemente

Who calls whom?

a) I call my sister

b) My sister calls me.

VanPatten (1996) p. 65

He points out how his approach differs from comprehension-based approaches, such as Krashen's, which deem understanding alone to be sufficient for acquisition. He also maintains that, while having much in common with Sharwood Smith's "input enhancement" (Sharwood Smith, 1993), in its emphasis on making forms salient, it also goes beyond it in important respects in providing learners with "opportunities for consistent form-meaning mappings in activities" (84). He does also consider it a type of "consciousness-raising", as described in the previous section, except that he has a caveat about the word "consciousness", which he suspects might mislead some readers into believing that conscious knowledge **must** precede subconscious knowledge:

We would prefer...to think of our approach to instruction as not about raising learner's consciousness about grammatical form but instead as enriching their subconscious intake (85)

His research into the effectiveness of this method suggests that it is more effective than traditional grammar teaching; unequivocally in the area of Spanish object pronouns, less clearly in the area of copula verbs. However, in the latter case, when the results for *estar* (the later acquired, more problematic verb) were examined

⁴ In sentence form rather than discourse form initially, so as not to overload their processing capacity; and in both written and oral form to take different learning styles into account; and including both "referential" examples (involving a hypothetical 3rd person) and "affective" examples (allowing the

separately, similar benefits of Input Processing could be seen. On this basis, the approach certainly seems worthy of consideration, though of course for initial presentation rather than as the only classroom activity. Some of Van Patten's own examples seem a little unadventurous, but this is a minor quibble as materials can always be adapted.

1.1.2.2 Classroom Contrastive Analysis

The occurrence of Spanish-Portuguese transfer suggests that it might be useful for learners to be made aware of the similarities and differences between the two languages; in other words, a classroom contrastive analysis (C.A.) may well be advisable. Rivers (1979) found that where Spanish structures were false cognates with similar French structures, (e.g. "je tiens a" v. "tengo que"), the use of a purely direct method was insufficient to avoid misinterpretation on the part of the student.

There has, however, been some discussion in the literature as to how exactly to approach the classroom application of contrastive analysis; "C.A. tells us what needs to be covered, not how it should be covered" (di Pietro, 1971, p173). It is not just a question of using the results of CA "raw", which is akin to "presenting a customer in a restaurant with the ingredients and the recipe" (Sanders, 1981, p24). Similarly, Nickel (1971) believes that such findings should inform the creation, selection and grading of teaching materials - what he calls "didactic and methodic programming" - rather than drawing students' attention to them directly. Nickel also reminds us that while contrastive linguistics "has already made valuable contributions in the field of foreign language teaching... it should be considered as only one of several currents in a deep ocean" (16)

Di Pietro and Sanders both warn against necessarily teaching the contrasts in contrasting "sets", which may "even be conducive to error-making". They quote Hadlich's (1965) claim that the *ser/estar* distinction in Spanish presents no problems to English-speaking learners if the two structures are not taught together (Hadlich makes the general claim that the "awareness of the possibility of erroneous substitution fosters in itself the substitution that it is designed to forestall" - cited in

learner to respond according to their own experiences, opinions and feelings)

James, 1971, p. 60). Where they differ is in the question of whether to teach only those structures where the two languages differ, leaving the rest to positive transfer (di Pietro) or whether to teach the whole language as a "coherent system" (Sanders); Sanders convincingly points out that learners will not KNOW that they can transfer, if the TL structure is not presented to them, and that moreover, this would encourage a rather schizophrenic approach to learning: half transfer, half thinking in the TL. She also reminds us that, in any case, structures that can be transferred wholesale are rare - two structures may look similar, but may differ in terms of frequency of occurrence, for example, or style. Nickel (1971) makes a similar point when he alerts us to the problem of "equivalence" across languages, or rather the lack of anything stronger than "pseudo-equivalence with approximate values" at the functional-semantic level.

Turning specifically to the teaching of Portuguese to learners with previous knowledge of Spanish, Hensey (1967) pointed out:

"the special relationship holding between these two major languages has consequences for the Portuguese class sufficient to justify attention in the professional literature, including text materials" (p.1)

He recommended grouping students according to whether they have a background in Spanish or not, maintaining that most Portuguese learners in the U.S. fell into the former category, while almost all existing teaching materials were intended for English speakers with no previous knowledge of cognate languages. Azevedo (1978) warned that trying to teach Portuguese "from scratch" to Spanish speakers was doomed to failure: it meant neglecting a valuable asset while failing to prevent transfer. And Cook (1992) reminds us that "the L1 is present in the L2 learner's mind whether the teacher wants it there or not" (584); the same can of course be said of the learner's other foreign languages.

The system of "transfer rules" proposed by, among others Weinreich (1953) and, specifically for Portuguese, Chandler (1958) has already been mentioned. There have been some courses produced in the U.S. specifically intended for learners of Portuguese with previous Spanish knowledge, such as Feldman's "An Experimental Programmed Audiolingual Self-Instruction Course in Brazilian Portuguese for

Speakers of Spanish"(1966); c.f. also Hensey's (1967) plan to adapt the textbook "Modern Portuguese" in which he proposed to focus more on negative than on positive transfer. There is also a computer system for the teaching of cognate languages , but so far this only exists for (1) Catalan for speakers of Spanish and (2) Middle High German for speakers of modern German. Plans were afoot for David Frier of Edinburgh University to adapt this programme for the teaching of Portuguese to speakers of Spanish, but unfortunately these have been dropped.

In general, Hensey (op cit) recommended that teaching materials should be prepared with a view to facilitating the positive effects of Spanish influence, while avoiding the negative effects; but he also believed that the teacher him/herself should have insights, enabling her/him to know which aspects to emphasise and which to pass over quickly. Much later, Sharwood Smith (1994) proposes trying to change learners' "current perceptions of cross-linguistic relations between related languages" - showing where they overlap and where they are distinct. He admits it could lead to over-reaction: they could be over- ready to accept similar structures; but perhaps it is still a necessary stage in the speeding-up process.

Personally, I do not share the doubts of those who are wary of making the contrasts overt; their caution is perhaps a sign of times when teaching metalinguistic knowledge was generally frowned upon. I see explicit classroom C.A. as a useful, nay essential, part of teaching this kind of learner. In fact, it could be considered a particular kind of consciousness raising; I have discussed it in a separate section because C.A. is an older tradition than C-R, at least in name.

11.2.2 Translation

One potentially useful activity for these learners might well be Spanish-Portuguese translation tasks, which would highlight the differences between the two languages, at the same time allowing the learners to grapple with authentic texts. Kirstein (1972) and Perkins (1978), recommend the activity of translating in general (between L1 and foreign language), when taught systematically, as a means of avoiding transfer. The same could surely apply to L2-L3 translation. Some interesting research by Tomasello and Herron (1989) deals with the "Garden Path

Technique". This involves giving students (L1 English-speakers learning L2 French, in this case) sentences to translate, where the use of a transfer strategy would inevitably lead to errors; the teacher then provides the correction. A group of students taught by this method were compared with a group who were simply told that the French pattern differed from the English one: and the performance of the former was better in tests administered on three separate occasions throughout the course . Although this technique was advocated as a way of pre-empting L1-L2 transfer, it sounds equally applicable to L2-L3 transfer. In other words, learners of Portuguese could be given sentences instantiating possible transfer errors, to translate from Spanish to Portuguese; subsequent correction would emphasise the areas of difference between the two languages.

Not all writers favour translation however - for example, James (1971) describes it as "a hindrance to fluency". Nickel (1971) while not specifically opposing it does emphasise that the powerful influence exerted by the L1 on the L2 means that the target language (as opposed to the L1) should be used intensively in the classroom.

11.2.3 Other comments

Teixeira-Leal Tarquinio (1977) felt strongly that it was pedagogically unsound to study both languages concurrently at an elementary level before one was thoroughly mastered; she claims that it leads to the production of a language which is neither Spanish nor Portuguese, but a mixture of the two. ("Espangues"). She also believed that students should be alerted to possible "interferences" in the very first Portuguese class.

Marton (1981), steadfastly working within a behaviourist paradigm, but with cognitive features⁵, and referring to transfer in general (not L2-L3), maintains that transfer is more likely to occur from the L1 if the L2 is learnt in a similar way, because of heightened "retroactive inhibition". So he suggests that ideally a learner should acquire his second language using a teaching method which does not resemble mother-tongue acquisition, preferably characterised by cognitive elements,

⁵ by which I mean that he uses behaviourist terminology, while recommending "cognitive elements" in classroom methods.

in order to differentiate it from L1 learning. By extension, one could argue for Spanish and Portuguese being taught through different methods, in order to avoid mutual influence between the two. This possibility seems to merit investigation, at least.

11.2.4 From Italian to Spanish: an Experiment

A very interesting though inconclusive research project carried out at the Institute of Applied Language Studies at Edinburgh University in the 1980's is worth outlining here. Advanced learners of Italian were taught Spanish by a method designed to take into account their knowledge of the cognate language, in a course involving 15 contact hours and 6 participants. There were two teachers in the classroom, a native speaker of Spanish and a native speaker of Italian. Some of the basic assumptions were that their level of reception would be higher than their level of production, so that more complex texts could be used than normally in a beginners' class; that basic communication would not constitute a problem in itself as learners could make themselves understood using Italian; and that an explicitly contrastive and metalinguistic approach would be appropriate.

One innovative activity type in particular was devised for this teaching situation, using a "deep-end" approach, in which learners would receive minimum overt Spanish linguistic input, then would be put into a situation and asked to communicate. The purpose of this was to allow them to formulate and test hypotheses about Spanish to be confirmed or disconfirmed during the course of the activity - real "discovery learning" in other words.

I had the good fortune to be able to interview a participant, who had kept her course materials, and had a clear recollection of the details of the course, so I was also able to hear her perspective. She certainly felt that a good deal of progress was made in the short time. She reported that Spanish was the classroom language, but that they were allowed to use Italian if "stuck"; the use of English was completely forbidden. Her perception was that they were encouraged to experiment, to make guesses about what might work in Spanish, and then were given the correct form afterwards. She gave a specific example: it was suggested they "try out" Spanish plural endings on

Italian words

In the first class, they were given a list of everyday expressions in Italian and asked how they thought these would be expressed in Spanish; apparently this elicited much "Western" Mexican language like "amigo" and "gringo"! The scores were low at this stage, because they lacked the experience and the confidence to guess, but when this activity was repeated at the end of the course, scores were around 80%, so progress was really noticeable. Later, they were asked to do the same in reverse, i.e. to look at a list of expressions in Spanish and try to translate them into Italian. These ranged from phrases which were very similar, through ones which might look but not sound similar, to ones which were totally different. This could be considered a kind of awareness-raising exercise.

Another activity of the consciousness-raising type was the viewing of a video with questions to answer in Spanish, followed by reading of the transcript and analysis of differences between the Spanish of the text and what the Italian would have been. Specific transformation rules were supplied (or elicited), such as the fact that the Italian ending *tá* (as in *etá*) normally corresponded to the Spanish ending *dad* (as in *edad*)

They were given more reading activities than listening, presumably for reasons of economy of time. Sometimes they were given bilingual texts (Spanish with Italian translation) from bilingual newspapers published in Italy, and tourist guides; here they were encouraged to try to read the Spanish but refer to the Italian if "stuck". On these occasions, they were not allowed to consult dictionaries. There were also freer production activities - they had to compose and act out dialogues, and perform in role-plays - usually in everyday situations like a hotel, restaurant, etc. Sometimes they were given a model script, which they read aloud for the purpose of trying out the pronunciation, then they had to improvise a similar situation. Other times, they were simply told the situation and asked "What do you think you would say?" The latter approach appears to correspond to the "deep-end" type activity mentioned above.

There were other more straightforwardly grammar lessons - but always through Italian rather than English, often overtly contrastive, emphasising similarities and

differences. For example, they were given bilingual lists of irregular participles, where often the verbs were irregular in the two languages in similar ways, and where a simple transformation rule again might suffice to teach several Spanish words at once - for example, a diphthong in Spanish corresponding to a monophthong in Italian. They were also given handouts on pronunciation rules, again in Spanish. All metalinguistic information was given through Italian, just as if they were L1 Italian speakers.

Other activities were more like those one might expect in a conventional beginners' class - dialogues to listen to and read without any reference to Italian, gap-filling exercise; lists of vocabulary... however, my informant felt that they were still comparing the two languages, even if only mentally. As the course went on, there were more of such "Spanish-only" activities, and they started to be actively dissuaded from using Italian.

My informant felt that she made more Italian-based mistakes on the "small" words, by which she appeared to mean function words -e.g. the use of "non" for "no". Interestingly, she also reported mistakes with endings, i.e. using a Spanish word with an Italian ending; in other words morphological transfer, which, as discussed in Sections 2.4.1 and 3.1.1, is not "supposed" to happen, but which certainly appears to when we are dealing with transfer between two foreign languages. Otherwise, she felt that the area where Italian exerted the most influence was in punctuation.

There was a great deal of correction, provided at intervals (rather than through constant interruption). My informant certainly felt that the feedback they were given was useful. The two teachers gave the feedback together - the Spanish speaker providing corrections, the Italian speaker commenting on the origin of the mistakes.

At the end of the course, the class teacher pronounced herself very satisfied with the learners' progress in Spanish, as did the learners themselves; so it would appear to have been a success. On the other hand, there was no empirical study of the effects of the method; it would be fascinating to attempt to devise and teach a similar course in Portuguese for Spanish teachers, incorporating a more rigorous evaluation.

Afterword A final caveat about learning styles: learners may be more "studial" or more "experiential" in orientation, and the mainly cognitive approaches focused on

here are almost certainly more suited to the former. However, I suspect that the type of student in my study, a sizeable majority of whom professed instrumental motivation, are more likely to fall into the "studial" category, and therefore to benefit from such methods.

11.3 The Role of Affect

The finding that both L1-L2 and L2-L3 influence can be affected by attitudes suggests further, rather different though not incompatible, pedagogical implications.

Some studies do seem to show that it is possible to change negative attitudes and break stereotypes. For example, Hanh (1980) reports a "Chicano awareness unit" given in the U.S. to 190 elementary school students; a significant positive change in attitude resulted, but it was not determined which components gave rise to the change. Ake (1982) cites a Syracuse (N.Y.) study in which two groups of students were given short courses on Hispanic culture; one course highlighted the differences between Hispanics and Americans, the other highlighted the similarities. There was a significant decrease in ethnocentricity and a slight improvement in attitude among the subjects in the latter group.

This underlines the importance of teaching languages along with cultural components - a greater knowledge and understanding of Iberian culture may decrease the likelihood of L1 transfer taking place, and increase the beneficial effects of positive transfer; to avoid L2 transfer, perhaps what is needed is more teaching of *specific* features of Portuguese culture, comparing and contrasting with Spanish, so that an awareness of the differences between the two cultures as well as the similarities, may lead to a sharper awareness of where the two languages differ.

11.4 How much does it matter anyway?

Time once more to play Devil's Advocate, and ask to what extent errors are important. There are those practitioners of Communicative Language Teaching who would argue that the only errors of significance are those which impede communication. Regarding the two areas under investigation, my intuitive feeling would be that misplacement of clitic pronouns would not matter in communicative

terms, in that pre-verbal placement (where post-verbal is required) would not change the meaning of the utterance, and - I assume - would be comprehensible,. Wrong choice of copula **could** well lead to misunderstanding, on the other hand, because of the aspectual distinction - it would indeed alter the meaning. ⁶ Of course in general terms there are myriad differences between Spanish and Portuguese grammar with potential for L2-L3 transfer. As seen above (in section 4.1) there are differences in the formal realisation of a specific structure (e.g. *me gusta* vs. *gosto de* - “I like”); semantico-syntactic differences (e.g. the aspectual meaning of the present perfect - recent past in Spanish vs repeated past in Portuguese); and structures that exist in one language and not the other (e.g. the inflected infinitive and the future subjunctive in Portuguese).

In reality, however, when considering the importance of error, the learner's aims are crucial; purely communicative competence may be sufficient for one who wishes to live in the target culture and pursue an unrelated career; however, if the learner's purpose is also instrumental - if he/she intends to use the language in a professional capacity - to teach Portuguese or be a translator or interpreter, for example - accuracy does become a desirable, nay essential, outcome; and overcoming errors caused by cross-linguistic influence does become a necessary aim of teaching/learning.

11.5 Summary

In this chapter I recommend that teachers of Portuguese actively use the similarities and differences between the two languages as a tool to both accelerate learning and help avoid error. Teachers can lead students to focus on structures in the input, and encourage them to try out their own hypotheses about similarities and differences in production tasks. These could take the form of both speaking activities of the “deep-end” variety described in 11.2.4 and the more structured translation tasks described in 11.2.2.

⁶ although arguably, in the particular case where L2 transfer would lead to error in Portuguese, i.e. permanent location, the meaning would probably be recoverable from context; a listener hearing *a igreja está.....*, is unlikely to infer that the location of the church is temporary, even if in certain cases it is not impossible...

12. CONCLUSION

12.1 Summary of the Study

This thesis has dealt with the under-researched issue of cross-linguistic influence between two foreign languages. This phenomenon is much attested in anecdote; I wished to investigate it in a more principled way, to see if it would be possible to begin to describe a model for L2-L3 transfer. The languages selected for study were Spanish and Portuguese. As well as investigating in a general way whether such influence does indeed occur, I also sought to see if there would be differences between transfer at the level of knowledge and transfer at the level of controlled production, and whether there were varying amounts of influence involved with different types of structure. Hence two task-types were used, judgement tasks and controlled production tasks; and two areas of grammatical rules were chosen for scrutiny: the position of clitic pronouns (representing a purely syntactic structure) and the existential verbs *ser* and *estar* (where the rules are semantic rather than syntactic). Other factors were explored to ascertain whether they would have an impact on the extent of C.L.I taking place, greater L3 proficiency being one; for this reason I studied subjects from three levels of proficiency. The whole issue of affective and motivational factors was also considered, to see if these could help account for individual differences in the amount of transfer. Another of my research questions involved whether transfer would be bi-directional, or whether there would be more influence from the stronger language to the weaker than vice versa; and I also touched on the issues of markedness and perceived language distance.

In fact, some L2-L3 influence was noted both in the form of positive and negative transfer. For the clitic pronouns, Spanish knowledge seemed generally beneficial in recognition but not in production, whereas for the existential verbs, on both tasks, Spanish knowledge appeared to lead the Spanish speakers both into correct production and into error, depending whether the rule resembled Spanish or not for a given context. On the cross-task comparison, no significant differences were found between their scores, which may have been an artefact of both tasks being ultimately quite controlled. Regarding the two structures, L2-L3 transfer was more

pervasive for *ser/estar* than for the clitics, but only with the production tasks.

The study involved three different levels of students, and the expected decrease in negative L2-L3 transfer with level appeared to occur with the judgements but not with the production task; and there only with the clitics. In fact, with the verbs of existence, negative transfer actually increased with level, leading me to infer that influence at the semantic level may be more enduring. Interesting "dips" at intermediate level were also observed (for some structures), suggesting there may be different underlying causes for apparent higher scores at beginner and advanced levels - possibly positive transfer at beginner level and acquisition at more advanced levels. The subjects' scores on a grammaticality judgement task in Spanish suggested, surprisingly, that cross-linguistic influence is bi-directional.

Regarding the issue of attitude and motivation, there was seen to be some correlation between some positive attitudes to the target culture, and the occurrence of L2-L3 transfer on the one hand, and the lack of L1-L3 transfer on the other. Moreover, there was some negative correlation between more negative attitudes and L2-L3 transfer. Neither of these two types of findings occurred across the board; a small number of results ran against prediction. The results from the Semantic Differential task were particularly interesting. For the clitic judgements, the homogeneity of the scores for the "Iberian"-oriented subjects contrasted sharply with the large differences between the British-oriented subjects' scores, which were far higher for English-like sentences than for Spanish-like sentences. All in all, there were enough suggestive findings to prevent me from accepting the null hypothesis on this question. Turning to motivation, integrative orientation seemed to be linked to transfer between the two foreign languages in the two production tasks but not in the judgement tasks, implying that it may be an important factor affecting control/performance but not knowledge/competence.

It was hoped through this study to create a multi-dimensional picture of L2-L3 C.L.I.; to simply show that L2-L3 transfer occurs would in itself not be interesting, given that most multilinguals can produce anecdotal examples of the phenomenon from their own experience. The aim has been to attempt to begin to

answer questions like "where?" and "when?" and "why?" and "who?", as well as to shed a little more light on the way foreign languages are acquired in general, and also to draw some pedagogical implications for the teaching of a third and related language.

The basic questions addressed will be summarised below:

1) Why should learners have recourse to their L2 rather than to their L1?

This question was examined in Section 3.3; to recap, it has been suggested by various researchers that L1 transfer may be blocked in favour of L2 transfer by a perception of "general foreignness"; viz Schmidt's (1986) "translate-to-foreign program", or Selinker and Baumgartner-Cohen's (1995) "talk foreign".

Another possibility is that the storage of foreign languages in the brain may actually work differently from the storage of the first language; this difference may either be in terms of physical location, or in terms of how the languages are stored and retrieved. Some recent neurological evidence was cited which suggests that different parts of Broca's area of the brain are activated by L1s than by foreign languages. It would follow, if L2 and L3 are stored in similar ways (and differently from L1), that they would be more likely to influence each other than to be influenced by L1.

Two distinct ideas are being described here, one involving the speakers' perception and one involving biological reality, but this does not preclude the two being related; it may be that the physical facts are reflected in the psychological representation.

This question is closely linked with the second question:

2) Does this happen no matter what the three languages in question are?

This question involves the construct of "psychotypological distance": most (although not absolutely all) research points to the idea that L1 transfer is more likely to be blocked in favour of L2 transfer where the L2 and the L3 are perceived as closely related. Previous studies have examined, among others, Arabic speakers with French

L2 learning English L3; Finnish speakers with Swedish L2 learning English L3; and German speakers with French L2 learning Spanish. Within the UG paradigm, Sharwood Smith has suggested that, where L2 and L3 are perceived as related, the L2 rather than the L1 may provide the "initial template" for the L3.

Regarding this study, Spanish (the L2) and Portuguese (the L3) are closely related historically and in terms of syntactical and lexical similarities; and as predicted there was more evidence of transfer from L2 than from L1.

3) Does this happen no matter what the language levels and items in question are?

To answer this question, different levels of language need to be examined. In the (admittedly not extensive) literature, there is some evidence of transfer at the levels of lexis and syntax; there is more doubt about L2-L3 transfer at the phonological level. In this particular study, it appeared to be the case that L2-L3 transfer occurred more at the semantic level than at the syntactic level. This is interesting given that in one of the lexical studies (Ringbom, 1986; 1987), L2-L3 transfer appeared to involve transfer of form rather than of semantic field.

Turning to individual items, the issue of "markedness" was also considered. This factor seems not to have been included in most studies of L2-L3 transfer in the literature; but in the exploratory study, there was some evidence that markedness considerations were overridden by "psychotypological distance", with marked forms being transferred in preference to unmarked ones if they resembled Spanish rather than English.¹ However, in the main study, there was no consistent pattern of degrees of markedness having an effect either way.

Again on the topic of levels of language, it is worth recalling here that the restriction on L1 transfer of bound morphology seems not to pertain to L2 transfer. This assertion is made on the basis of both anecdotal evidence (cited in 3.1.1) and the evidence from this study regarding the transfer of L2 clitic pronoun order. Learners might have been expected to prefer to transfer from the L1, as object pronouns in English are not clitics and therefore do not constitute bound morphology; however

¹ This is consistent with White's (1987) findings about L2-L3 transfer of marked preposition-stranding. (see Section 3.1.2.2.)

this did not occur: the learners in question were more likely to transfer from L2, in other words, to transfer bound morphology.

One further point here is the status of the item in the learner's interlanguage: whether it is unknown, known at some level but not completely automatised, or fully known (see discussion in Section 2.2). We can assume with the learners in this study that the items involved are known at **some** level, as they had all received classroom instruction in both clitics and *ser/estar*. The question would then be to what extent this knowledge is explicit or implicit; in other words would the learner who avoided transferring by using explicit knowledge also have succeeded in avoiding it if she had had recourse only to her implicit knowledge. As discussed in Section 7.1, this distinction cannot be made fully on the basis of this study, although an attempt was made to "push" the subjects in the direction of using implicit knowledge through the wording of the instructions.

4) Does this happen no matter who the learner in question is?

Posed in isolation, the three previous questions appear to assume that the effect of the various constraints will operate across the board, i.e. equally with all learners. However, just as learners vary as to the level of proficiency they can reach in a foreign language, so they can vary in terms of the extent of C.L.I. on their interlanguage. As discussed in 2.3.2.2., Felix's Competition Model seems to be the model of L2 learning most able to reconcile the fact that (practically) all humans fully learn their L1 with the fact that ultimate attainment is unreachable by the majority of L2 learners, while at the same time allowing for differential attainment among individual L2 learners, with some making more use of the "language-specific cognitive structures" available since infancy, and others making more use of the (less effective) mature "problem-solving cognitive structures". I would suggest that the latter may be linked with the use of L1 as a strategy, and it might be those learners who are less "emotionally involved" with the target language (i.e. instrumentally-motivated; less positive attitudes to the target culture) who make more use of the problem-solving structures, hence the L1, with more integratively-

motivated/positively-oriented learners making more use of the "language-specific structures (and possibly their L2).

As already described, the above-mentioned area of attitude and motivation was the particular area of variability among learners to be addressed in this study, and there did indeed appear to be a link between positive attitudes, integrative motivation, and L2-L3 transfer.

Another between-learner difference which may have an effect on the type and amount of transfer is the learners' level; the comparison carried out in this study which showed that the amount of L2-L3 transfer seemed to decrease for the syntactic structure, while appearing to increase with the semantic structure. Finally, the effect of proficiency in the L2 was one between-learner factor which was not considered here, but which would be a useful topic for further research.

5) Does it happen consistently within an individual learner?

This question involves issues such as style (how much attention is being paid to form on a given occasion), and differences between the type and amount of transfer occurring at the levels of knowledge and control. Linguistic context may also have a bearing. Again, these considerations seem not to have been examined in the literature on L2-L3 transfer; in my own study these factors appeared not to account for differences, but this may well have merely been a result of flaws in the research design.

It would be appropriate here to once more invoke Selinker's "Multiple Effects Principle" and Sharwood Smith's "Conspiracy Theory", and recall that there is no reason to assume one unique cause for L2-L3 transfer. To sum up this section, it could be said that L2-L3 transfer probably has psychological and/or neurological origins, which lead it to override L1 transfer; it is more likely to be triggered when the L2 and the L3 are similar; it can occur at various levels but seems to be more deep-seated at the semantic level; and it occurs to varying degrees depending on the learner's level and her orientation towards the target language(s) and culture(s).

12.2 Limitations of the Study

There are many limitations in the research design. The limitations regarding task-type have been discussed in Chapter 7. The subjects for this experiment have not been selected by random sampling, due to the relative rarity of students of Portuguese in Britain; therefore we cannot claim that the results are generalisable to the whole population of English-L1 learners of Portuguese. One of the major shortcomings is the size of the control group; again, this was because of practical considerations: most learners of Portuguese **have** in fact learnt some Spanish first before proceeding to Portuguese. It would have been possible to include more non-Spanish-speaking learners, from continuing education classes, but it was felt that as most of these learners would have been of different ages and backgrounds, and would not have been undergraduate students, the control group would no longer have been homogeneous. This problem had implications for the findings of the statistical tests used; however, even if this study still has to be regarded as in a sense exploratory, the findings may yet be of interest and value for teachers of related languages.

12.3 Future Research

The area of research into L2-L3 transfer is still in its infancy. This thesis has explored certain aspects, but the studies need to be replicated, and extended to include other language items, and other languages; and other variables should be included if we are to get a broader picture.

As we saw in 3.4, Ringbom (1983) maintains that it is necessary to have a certain level of proficiency in a language before it can be used as a source of transfer; yet there is plenty of anecdotal evidence which would suggest this is not necessarily so. It would be interesting to examine the relationship between proficiency in Spanish, and Spanish-Portuguese transfer, with the kind of subjects used in this study, in order to see if there is any correlation.

There is always a risk with this type of research: that of generalising from a very specific point of syntax or semantics to posit universal trends. In the case of this study, the finding that students transfer (to some extent) from Spanish to Portuguese

in the areas of clitic pronouns and the *ser/estar* distinction does not give us the right to conclude that this L2-L3 transfer occurs across the board; more research is therefore needed, exploring a wider range of language levels. We have not touched on phonology, nor levels of language above the sentence, like pragmatics and discourse. Nor have we looked at the area of transfer in reception. Any attempt at a comprehensive explanation of L2-L3 transfer will need to look in depth at all these areas.

Regarding variation, we did not get an inclusive picture, as in the main study there was no spontaneous production data. A useful follow-up study, therefore, would be to gather such data, both spoken and written, and subject it to analysis; this would also serve the purpose of comparing a variety of structures beyond the two that were chosen for this study. Another factor which might influence the amount of C.L.I. taking place between individual learners is the whole issue of learning styles and strategies; this could be investigated through the use of questionnaires. A final point regarding the subject of variation: a truly systematic study should also involve the question of variation in terms of linguistic context. In fact, the existing data could be subject to further analysis to explore this, to ascertain, for example, whether the tense of the sentence has a bearing regarding the clitic pronoun tasks, or whether the nature of the complement has an effect regarding the copular verbs, in terms of C.L.I.

In pedagogical terms, the value of explicitly teaching Portuguese with reference to previous Spanish knowledge would need to be empirically verified. I would like to recommend a controlled experiment, with three matched groups of learners: one group would have the differences and similarities explicitly pointed out to them, one would be left to formulate these for themselves, through discovery by means of class discussion of language data, and the third group would be taught Portuguese without any reference to Spanish being made in the classroom (in other words any connections between the two languages would be made internally, in the learner's own head.) They could then be assessed at the end of the course, both in terms of general language proficiency, and in terms of occurrence of transfer.

Finally, it would be valuable to compare our classroom learners with some naturalistic learners, probably through case studies as it would be extremely difficult to find a homogeneous group of such learners in order to do a quantitative study.

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APPENDIX 1: Grammaticality Judgement Task used in Exploratory Study

Please give your reactions to the following Portuguese sentences as described below:

Two ticks if you are sure it is correct

One tick if you think it is correct but are not sure.

One cross if you think it is incorrect but are not sure.

Two crosses if you are sure it is incorrect.

IN THE LAST TWO CASES PLEASE UNDERLINE THE PART OF THE SENTENCE YOU THINK IS INCORRECT.

Onde está a estação?

O João é triste hoje.

A minha case é na Praça de República.

A tua caneta está na gaveta.

O hospital fica perto do castelo.

O seu pai ficou furioso.

Gostas de cantando?

Gostei muito do livro.

Gosta-me aprender linguas.

A minha mãe gosta de dançar.

Ontem tem chovido muito.

Temos comprado muitas coisas.

Esta manhã tenho visto ao Mario.

O Presidente morreu hoje, às 10 da manhã.

Jà não amo-te.

Ontem disse-lhe que ia comprà-lo.

Quem as matou?

É a senhora que os comprou.

O que é que disseste-me?

Que vão a fazer amanhã?

Vou comprar uma casa nova.

Dir-lho-ei quando o veja.

Escreve-me quando chegares, faz favor.

Se tiver tempo, irei ao cinema.

Se alguém venha, diga-lhe que não estou.

É uma pena não termos dinheiro.

Dei-te o livro para o leias.

Vi-os atravessar o rio.

Foi-se embora sem a verem.

APPENDIX 2: ATTITUDE QUESTIONNAIRES

First pilot version of questionnaire

QUESTIONNAIRE: ATTITUDES TO IBERIA

Record your reactions to the following statements, as follows:

If you feel that it expresses a very negative attitude towards Iberian culture, write "VN"

If you feel that it expresses an attitude which is negative but not excessively so, write "N"

If you feel that it expresses a neutral, non-judgemental opinion, OR if you feel that it is ambiguous, write "O"

If you feel that it expresses a fairly positive opinion, write "P"

If you feel that it expresses a very positive opinion, write "VP"

I should emphasise that YOU ARE NOT BEING ASKED WHETHER YOU, PERSONALLY, AGREE WITH THE STATEMENTS.

Also, if you feel that a particular statement is badly-phrased, or downright stupid (e.g., so negative or stereotyped that no thinking person could agree with it...) please say so; that is the purpose of a pilot, after all.

1. Although geographically part of Europe, Spain and Portugal are economically and socially third-world countries. _____
2. Spanish and Portuguese people are more extrovert than British people. _____
3. Iberian people have more "joie de vivre" than British people. _____
4. Spain and Portugal are less intrinsically democratic nations than Britain. _____
5. Moorish rule in parts of Spain and Portugal meant that these regions enjoyed a high degree of civilisation when Britain was living in the dark ages. _____
6. Spain and Portugal have produced no playwrights as good as Shakespeare. _____
7. "Don Quijote" has far more universal relevance than any novel written in Britain at the same time. _____
8. Spanish people tend to be rather cruel and bloodthirsty. _____
9. The fact that the 25th of April was a peaceful revolution reflects the gentleness of the Portuguese people. _____
10. Spanish and Portuguese seem to be rather richer, more expressive languages than English. _____
11. Spain and Portugal are nice places to go for a holiday, but not to live in. _____

12. Spanish art, both classical and modern is amongst the finest in the world. _____
13. The Iberian peninsula contains a very rich diversity of cultures. _____
14. The Spanish and Portuguese were not very successful imperial powers, because they squandered all the money gained from the colonising of the Americas. _____
15. The Spanish and Portuguese are less racist than the British. _____
16. The Spanish and Portuguese are less conformist than the British. _____
17. Only a country like Spain could have produced a phenomenon like the Spanish Inquisition. _____
18. On the whole, Iberians tend to be better-looking and better-dressed than the British. _____
19. Iberian society is less class-conscious than British. _____
20. The Iberian peninsula has produced relatively few great scientists and inventors. _____
21. Iberians tend to be quite informal in their relations with people who they have only just met. _____
22. The Iberians who have moved to Britain have made a great contribution to the richness of our society. _____
23. The more I get to know Spanish and Portuguese people, the more I want to be fluent in their languages. _____
24. The Iberians' strong religious faith is a positive force in the modern world. _____
25. Iberians have every reason to be proud of their culture and their traditions. _____
26. We can learn better ways of cooking, serving food and entertaining from Iberian people. _____
27. Iberians are much more polite than most British people.
28. Iberian people are very dependable. _____
29. British children can learn much of value by associating with Spanish and Portuguese playmates. _____
30. Spanish and Portuguese people set a good example for us by their attitudes to family life. _____
31. It is wrong to try to force Spanish and Portuguese immigrants to become completely British in their habits and language. _____

32. British industry benefits from the employment of Spanish and Portuguese people. _____
33. Iberians tend to prefer an easy life to one of hard work. _____
34. Iberians are less rational than Northern Europeans in their approach to life. _____
35. Politically, Iberians tend to need a strong leader rather than a parliamentary democracy. _____
36. Spain and Portugal are rather backward, scientifically and technologically. _____
37. There is a certain lack of creativity in the Iberian mentality. _____
38. In the long run, Spain and Portugal will prove to be a burden on the E.E.C. _____
39. Spain and Portugal belong more to Africa than to Europe.
40. It would not be surprising if Spain and Portugal had higher crime rates than Britain. _____
41. Spanish and Portuguese people have a more philosophical attitude to life than British people. _____
42. Spanish and Portuguese culture is very sexist in its treatment of women. _____
43. Iberian society has a more accepting attitude towards madness and mental handicap than does British society. _____
44. Iberian women are more inhibited in their dealings with the opposite sex. _____
45. Iberian people have more respect for old people than British people. _____
46. Iberian people do not have the same respect for individual privacy as British people. _____
47. Spanish and Portuguese people have a closer-knit family-life than British people.
48. Children are more appreciated in Spanish and Portuguese culture than in our own. _____
49. Iberians are more easy-going than British people. _____
50. Iberians are less ambitious than British people. _____

Final questionnaire
Date of birth.....

QUESTIONNAIRE

The following statements are ones with which some people would agree and others would disagree. There are no right and wrong answers, simply different opinions. Record your own reactions to them as follows:

- If you strongly agree with the statement, circle "5"
- If you agree, although not strongly, circle "4"
- If you are not sure whether or not you agree with the opinion expressed, circle "3"
- If you disagree, but not strongly, circle "2"
- If you strongly disagree, circle "1".

If you feel that the statement is more true of Spain than of Portugal, for example, you can give separate answers.

EXAMPLE:

Iberian people tend to be more intelligent than British people. 1 2 3 4 5

If you agree strongly, circle "5". If you disagree, but mildly, circle "2". If you feel it is true of Portuguese, but less so of Spanish, for example, you can circle "5" and "4", and write a "P" beside the "5" and an "S" beside the "4".

- | | | | | | |
|---|---|---|---|---|---|
| 1. Spanish and Portuguese people are more extrovert than British people. | 1 | 2 | 3 | 4 | 5 |
| 2. Iberian people have more "joie de vivre" than British people. | 1 | 2 | 3 | 4 | 5 |
| 3. Spain and Portugal are intrinsically less democratic nations than Britain. | 1 | 2 | 3 | 4 | 5 |
| 4. Spain and Portugal have produced no playwrights comparable with Shakespeare. | 1 | 2 | 3 | 4 | 5 |
| 5. "Don Quijote" has far more universal relevance than any novel written in Britain at the same time. (c. 1600) | 1 | 2 | 3 | 4 | 5 |
| 6. Spaniards tend to be rather cruel and bloodthirsty, compared with British people. | 1 | 2 | 3 | 4 | 5 |
| 7. Spanish and Portuguese seem to be rather richer, richer, more expressive languages than English. | 1 | 2 | 3 | 4 | 5 |
| 8. Spain and Portugal are nice places to go for a holiday, but not to live in. | 1 | 2 | 3 | 4 | 5 |
| 9. Spanish art, both classical and modern, is amongst the finest in the world. | 1 | 2 | 3 | 4 | 5 |
| 10. The Iberian peninsula contains a very rich diversity of cultures. | 1 | 2 | 3 | 4 | 5 |

11. Spain and Portugal are rather backward, scientifically and technologically.	1	2	3	4	5
12. The Spanish and Portuguese are less racist than the British.	1	2	3	4	5
13. The Spanish and Portuguese are less conformist than the British.	1	2	3	4	5
14. Only a country like Spain could have produced a phenomenon like the Spanish Inquisition.	1	2	3	4	5
15. On the whole, Iberians tend to be better-looking and better-dressed than the British.	1	2	3	4	5
16. Iberian society is less class-ridden than British.	1	2	3	4	5
17. There is a certain lack of creativity in the Iberian mentality.	1	2	3	4	5
18. The Iberians' strong religious faith is a positive force in the modern world.	1	2	3	4	5
19. Iberians have every reason to be proud of their race and their traditions.	1	2	3	4	5
20. It would not be surprising if Spain and Portugal had higher crime rates than Britain.	1	2	3	4	5
21. We can learn interesting ways of cooking, serving food and entertaining from Iberian people.	1	2	3	4	5
22. Iberians are much more polite than most British people.	1	2	3	4	5
23. In the long run, Spain and Portugal will prove to be a burden on the E.E.C.	1	2	3	4	5
24. Iberian people are very dependable.	1	2	3	4	5
25. British children can learn much of value by associating with Spanish and Portuguese playmates.	1	2	3	4	5
26. Although geographically part of Europe, Spain and Portugal are economically and socially third-world countries.	1	2	3	4	5
27. Spanish and Portuguese people set a good example for us by their attitudes to family life.	1	2	3	4	5
28. Iberians are less rational than Northern Europeans in their approach to life.	1	2	3	4	5
29. Politically, Iberians tend to need a strong leader rather than a parliamentary democracy.	1	2	3	4	5
30. Spanish and Portuguese culture is very sexist in its treatment of women.	1	2	3	4	5

31. Iberian women are inhibited in their dealings with the opposite sex.	1	2	3	4	5
32. Iberian people have more respect for old people than British people.	1	2	3	4	5
33. Iberian people do not have the same respect for individual privacy as British people.	1	2	3	4	5
34. Children are more appreciated in Spanish and Portuguese culture than in our own.	1	2	3	4	5
35. Iberian people are generous and hospitable to strangers.	1	2	3	4	5
36. I would rather live in Spain or Portugal than in Britain.	1	2	3	4	5
37. Spanish and Portuguese people are rather superficial in their friendships.	1	2	3	4	5
38. Britain would be a better country if more Spanish and Portuguese people came to live here.	1	2	3	4	5

Please circle the answer which best corresponds to your opinion:

In general, how would you define your attitude towards Portuguese people, culture, way of life? very positive / fairly positive /indifferent / rather negative / very negative

...and towards Spanish people, culture, way of life?

very positive / fairly positive /indifferent / rather negative / very negative

How does your attitude towards Portugal and Portuguese people compare with your attitude towards Spain and Spanish people? more positive/less positive/ more or less the same

How does your attitude to Portugal and Portuguese people compare with your attitude towards British people? more positive/ less positive/ more or less the same.

Have you ever been to Spain? yes/no If yes, how long for?

Have you ever been to Portugal? yes/no If yes, how long for?

How much previous knowledge do you have of Spain and Spanish culture? none/a little/quite a lot/a lot

How much previous knowledge do you have of Portugal and Portuguese culture? none/a little/quite a lot/a lot

APPENDIX 3: SEMANTIC DIFFERENTIAL TASKS

Pilot for semantic differential

Below, you will find several groups of three nationalities. In each case, describe some way in which two of these nationalities are alike and thereby different from the third. Where possible, answer according to the personality characteristics, rather than the physical characteristics of the people concerned.

Try to use the format "x and y are _____, but z are _____", using pairs of antonyms, if possible; otherwise express your answer any way you like.

- 1)

German

French

American
- 2)

French

Spanish

German
- 3)

Spanish

Japanese

Swedish
- 4)

Swedish

Portuguese

German
- 5)

French

Swedish

Japanese
- 6)

American

Spanish

Swedish
- 7)

German

American

Japanese
- 8)

Portuguese

Swedish

American
- 9)

German

Japanese

Swedish
- 10)

American

Spanish

French

11)	Japanese	German	French
12)	Portuguese	Spanish	French
13)	Swedish	American	French
14)	Portuguese	German	American

Pilot semantic differential

We would like to know what you think about the general characteristics of the following nationalities. Below you will find a list of opposing qualities. Please mark with an "X" the position on the scale which best describes your perception of the nationalities named. The middle position is intended for qualities about which you are neutral, or have no opinion. For example, if you felt that Portuguese people, on the whole, were highly intelligent, you would place your "X" near the far right end of the scale, as follows:

Stupid	1	2	3	4	5	6	7	8	9	10	Intelligent
	1	2	3	4	5	6	7	8	9	10	
<u>Portuguese people</u>											
Tolerant	1	2	3	4	5	6	7	8	9	10	Intolerant
Inhibited	1	2	3	4	5	6	7	8	9	10	Uninhibited
Adventurous	1	2	3	4	5	6	7	8	9	10	Unadventurous
Quiet	1	2	3	4	5	6	7	8	9	10	Loud
Emotional	1	2	3	4	5	6	7	8	9	10	Ruled by the head
Self-confident	1	2	3	4	5	6	7	8	9	10	Shy
Superficial	1	2	3	4	5	6	7	8	9	10	Profound
Romantic	1	2	3	4	5	6	7	8	9	10	Practical
Conformist	1	2	3	4	5	6	7	8	9	10	Independent
Efficient	1	2	3	4	5	6	7	8	9	10	Inefficient
Talkative	1	2	3	4	5	6	7	8	9	10	Taciturn
Aggressive	1	2	3	4	5	6	7	8	9	10	Pacific
Feel inferior	1	2	3	4	5	6	7	8	9	10	Feel superior
Reserved	1	2	3	4	5	6	7	8	9	10	Friendly
Formal	1	2	3	4	5	6	7	8	9	10	Informal
Humourless	1	2	3	4	5	6	7	8	9	10	Witty
Idle	1	2	3	4	5	6	7	8	9	10	Hardworking
Honest	1	2	3	4	5	6	7	8	9	10	Dishonest
Interesting	1	2	3	4	5	6	7	8	9	10	Boring
Religious	1	2	3	4	5	6	7	8	9	10	Irreligious
Arrogant	1	2	3	4	5	6	7	8	9	10	Humble
Subjective	1	2	3	4	5	6	7	8	9	10	Objective
Demonstrative	1	2	3	4	5	6	7	8	9	10	Phlegmatic
Private	1	2	3	4	5	6	7	8	9	10	Open
Parochial	1	2	3	4	5	6	7	8	9	10	Internationally aware
Monolingual	1	2	3	4	5	6	7	8	9	10	Multilingual
Reliable	1	2	3	4	5	6	7	8	9	10	Unpredictable
Intuitive	1	2	3	4	5	6	7	8	9	10	Logical
Bossy	1	2	3	4	5	6	7	8	9	10	Accomodating
Sophisticated	1	2	3	4	5	6	7	8	9	10	Unsophisticated
Organised	1	2	3	4	5	6	7	8	9	10	Disorganised

(This was followed by the same task for Spanish and British people)

Final version:

Date of birth_____

We would like to know what you think about the general characteristics of the following nationalities. Below you will find a list of opposing qualities. Please mark with an "X" the position on the scale which best describes your perception of the nationalities named. The middle position is intended for qualities about which you are neutral, or have no opinion. For example, if you felt that Portuguese people, on the whole, were highly intelligent, you would place your "X" near the far right end of the scale, as follows:

Stupid	1	2	3	4	5	6	7	8	9	10	Intelligent
<u>Portuguese people</u>											
Tolerant	1	2	3	4	5	6	7	8	9	10	Intolerant
Inhibited	1	2	3	4	5	6	7	8	9	10	Uninhibited
Adventurous	1	2	3	4	5	6	7	8	9	10	Unadventurous
Self-confident	1	2	3	4	5	6	7	8	9	10	Shy
Superficial	1	2	3	4	5	6	7	8	9	10	Profound
Conformist	1	2	3	4	5	6	7	8	9	10	Independent
Efficient	1	2	3	4	5	6	7	8	9	10	Inefficient
Reserved	1	2	3	4	5	6	7	8	9	10	Friendly
Informal	1	2	3	4	5	6	7	8	9	10	Formal
Humourless	1	2	3	4	5	6	7	8	9	10	Witty
Idle	1	2	3	4	5	6	7	8	9	10	Hardworking
Honest	1	2	3	4	5	6	7	8	9	10	Dishonest
Interesting	1	2	3	4	5	6	7	8	9	10	Boring
Arrogant	1	2	3	4	5	6	7	8	9	10	Humble
Demonstrative	1	2	3	4	5	6	7	8	9	10	Phlegmatic
Open	1	2	3	4	5	6	7	8	9	10	Private
Parochial	1	2	3	4	5	6	7	8	9	10	Internationally aware
Monolingual	1	2	3	4	5	6	7	8	9	10	Multilingual
Reliable	1	2	3	4	5	6	7	8	9	10	Unpredictable
Bossy	1	2	3	4	5	6	7	8	9	10	Accomodating
Organised	1	2	3	4	5	6	7	8	9	10	Disorganised

Spanish People

Tolerant	1		1		1		1		1
Inhibited	1		1		1		1		1
Adventurous	1		1		1		1		1
Self-confident	1		1		1		1		1
Superficial	1		1		1		1		1
Conformist	1		1		1		1		1
Efficient	1		1		1		1		1
Reserved	1		1		1		1		1
Informal	1		1		1		1		1
Humourless	1		1		1		1		1
Idle	1		1		1		1		1
Honest	1		1		1		1		1
Interesting	1		1		1		1		1
Arrogant	1		1		1		1		1
Demonstrative	1		1		1		1		1
Open	1		1		1		1		1
Parochial	1		1		1		1		1
Monolingual	1		1		1		1		1
Reliable	1		1		1		1		1
Bossy	1		1		1		1		1
Organised	1		1		1		1		1

Intolerant
Uninhibited
Unadventurous
Shy
Profound
Independent
Inefficient
Friendly
Formal
Witty
Hardworking
Dishonest
Boring
Humble
Phlegmatic
Private
Internationally aware
Multilingual
Unpredictable
Accommodating
Disorganised

British People

Tolerant	1		1		1		1		1
Inhibited	1		1		1		1		1
Adventurous	1		1		1		1		1
Self-confident	1		1		1		1		1
Superficial	1		1		1		1		1
Conformist	1		1		1		1		1
Efficient	1		1		1		1		1
Reserved	1		1		1		1		1
Informal	1		1		1		1		1
Humourless	1		1		1		1		1
Idle	1		1		1		1		1
Honest	1		1		1		1		1
Interesting	1		1		1		1		1
Arrogant	1		1		1		1		1
Demonstrative	1		1		1		1		1
Open	1		1		1		1		1
Parochial	1		1		1		1		1
Monolingual	1		1		1		1		1
Reliable	1		1		1		1		1
Bossy	1		1		1		1		1
Organised	1		1		1		1		1

Intolerant
Uninhibited
Unadventurous
Shy
Profound
Independent
Inefficient
Friendly
Formal
Witty
Hardworking
Dishonest
Boring
Humble
Phlegmatic
Private
Internationally aware
Multilingual
Unpredictable
Accommodating
Disorganised

The Ideal Person

Tolerant	1		1		1		1		1
Inhibited	1		1		1		1		1
Adventurous	1		1		1		1		1
Self-confident	1		1		1		1		1
Superficial	1		1		1		1		1
Conformist	1		1		1		1		1
Efficient	1		1		1		1		1
Reserved	1		1		1		1		1
Informal	1		1		1		1		1
Humourless	1		1		1		1		1
Idle	1		1		1		1		1
Honest	1		1		1		1		1
Interesting	1		1		1		1		1
Arrogant	1		1		1		1		1
Demonstrative	1		1		1		1		1
Open	1		1		1		1		1
Parochial	1		1		1		1		1
Monolingual	1		1		1		1		1
Reliable	1		1		1		1		1
Bossy	1		1		1		1		1
Organised	1		1		1		1		1

Intolerant
Uninhibited
Unadventurous
Shy
Profound
Independent
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Witty
Hardworking
Dishonest
Boring
Humble
Phlegmatic
Private
Internationally aware
Multilingual
Unpredictable
Accommodating
Disorganised

APPENDIX 4: LINGUISTIC TASKS - MAIN STUDY

PORTUGUESE GRAMMATICALITY JUDGEMENTS

Date of Birth.....

Please give your reactions to the following Portuguese sentences, as described below.

Two ticks () if you are sure it is correct.

One tick () if you think it is correct, but are not sure.

Question mark (?) if you really do not know whether it is correct or not.

One cross (X) if you think it is incorrect but are not sure.

Two crosses (XX) if you are sure it is incorrect

IF YOU FEEL THAT A SENTENCE IS INCORRECT, PLEASE UNDERLINE THE PART OF THE SENTENCE YOU BELIEVE TO CONTAIN THE ERROR, AND IF POSSIBLE, CORRECT IT.

- ___ O antigo museu estava na rua principal.
- ___ Essa mulher me faz rir muito.
- ___ Mandei-lhe um postal ontem.
- ___ Sabes onde é o meu casaco?
- ___ E o homem que convidou-o para a festa.
- ___ A primeira igreja não estava longe de aqui.
- ___ A minha mãe lhe mostrou a casa?
- ___ A sua casa estava perto do mar?
- ___ A sua mãe deu-lhe um beijo.
- ___ Este aluno está muito inteligente; tem sempre boas notas.
- ___ Te vejo amanhã à mesma hora?
- ___ A Ana não está egoísta; sempre pensa nos outros.
- ___ Eles disseram que o mataram.
- ___ A sua filha deu-lhe o recado?
- ___ Eu estava nervosa antes do exame.
- ___ Já tenho-os; chegaram ontem.
- ___ A sua casa era na Praça da República.
- ___ Esta canção faz-me chorar sempre.
- ___ Onde é o teatro?
- ___ Me levanto sempre antes das oito.
- ___ A antiga estação não era no centro.
- ___ Telefone-te amanhã às nove?
- ___ O seu marido era russo.
- ___ Não encontro-os; não sei onde estão.
- ___ Este vinho não é muito caro; podemos comprar mais.
- ___ Já a conheço; parece simpática.
- ___ A sua mulher estava francesa.
- ___ Quero saber quem o fez.
- ___ Não estás muito feliz hoje.
- ___ O João não é triste hoje.
- ___ Não os vejo; não sei onde estão.
- ___ Vancouver não é nos Estados Unidos.
- ___ A sua mãe é engenheira?
- ___ Quero saber quando viste-a.

____ Onde está a estação?
____ O castelo era perto do rio?
____ Lhe escrevi uma carta ontem.
____ As flores são acima da mesa.
____ O seu pai lhe comprou um carro.
____ Sintra está perto de Lisboa.
____ Chama-me quase todos os dias.
____ Onde estão os teus amigos?
____ Ele disse que amava-te.
____ A minha mãe estava furiosa ontem.
____ Onde é que as compraste?
____ O seu pai é um homem muito honrado; sempre diz a verdade.
____ O que é que disseste-me?
____ O teu pai está médico?
____ O Porto é no norte de Portugal.
____ É a senhora que me deu o dinheiro.
____ A sua caneta está na gaveta.
____ A universidade não está no centro da cidade.
____ Este aluno está muito inteligente; tem sempre boas notas

CONTROLLED PRODUCTION TASKS:

Clitic Pronouns

Date of birth.....

Exercise A

Rewrite the following sentences, in each case inserting the pronoun in brackets in the correct place in the sentence. Make any other necessary changes.

EXAMPLE:

(me) Que boa ideia deste.
Que boa ideia me deste

- (o) Comprei na loja da minha irmã.

- (te) Não conheço.

- (a) É o homem que matou.

- (me) Lembro muitas vezes desse dia tão lindo.

- (o) Quem fez?

- (os) Vejo com muita frequência.

- (a) Tinha visto.

- (lhe)(o) Já disse que tinha feito.

- (te) Ninguém quer.

- (lhe) Prometi que não diria nada a ninguém.

- (me) Ele contou muitas coisas interessantes.

Ser/estar:

Date of birth.....

Exercise B

Complete each of the following sentences, choosing one of the two verb-forms given in brackets below each sentence; write your answer in the space provided.

EXAMPLE:

Fernando Pessoa _____ é _____ um grande poeta deste século.
(é/está)

Aquela tasca _____ na rua dos Combatentes.
(é/está)

_____ muito feliz hoje.
(sou/estou)

A sua irmã _____ catedrática na universidade de Aveiro.
(é/está)

Este vinho _____ francês.
(é/está)

A aldeia da minha avó _____ na Serra da Estrela.
(é/está)

O professor _____ bastante zangado ontem.
(esteve/foi)

A sua casa _____ em Alfama, perto do Castelo.
(é/está)

O Pedro _____ uma das pessoas mais simpáticas que eu conheço.
(é/está)

A cerveja _____ no frigorífico.
(é/está)

SPANISH GRAMMATICALITY JUDGEMENT TASK

Please give your reactions to the following Spanish sentences, as described below.

Two ticks if you are sure it is correct.

One tick if you think it is correct, but are not sure.

Question mark (?) if you really do not know whether it is correct or not.

One cross if you think it is incorrect but are not sure.

Two crosses if you are sure it is incorrect

IF YOU FEEL THE SENTENCE IS INCORRECT, PLEASE UNDERLINE THE PART OF THE SENTENCE YOU BELIEVE TO CONTAIN THE ERROR, AND IF POSSIBLE, CORRECT IT.

- _____ Mi hermano mayor es ingeniero.
- _____ ¿Te veo mañana a las siete?
- _____ Mi hijo no estaba en su cuarto.
- _____ ¿Por cuánto lo compraste?
- _____ ¿Santander está en Cantabria o en Asturias?
- _____ El policía no hizo me caso.
- _____ El pán ya está en el horno.
- _____ Ese es el hombre que me robó.
- _____ Estás muy pensativa esta noche.
- _____ ¿Hace cuánto que estudias lo?
- _____ Este niño no es muy inteligente.
- _____ Mi padre no me tomaba en serio.
- _____ ¿Tu madre esta enfadada?
- _____ Este es el perro que mordió me.
- _____ Hoy tu amiga es muy alegre .
- _____ Siempre compro los en el mercado.
- _____ ¿Cuál es el hombre que mató la?
- _____ El restaurante chino es enfrente de la estación.
- _____ Dijo que te quería mucho.
- _____ Su padre no era en su despacho.
- _____ Mi tío esta una persona muy honrada.
- _____ Lo leo cuando tengo tiempo.
- _____ Está muy alta la montana?
- _____ Dijo que ya no quería la.
- _____ Nuestro hotel no está en el centro.
- _____ Lo hiciste sin pensar en las consecuencias?
- _____ Esta mujer no está alemana.
- _____ Su casa está cerca de la catedral.
- _____ ¿Cuántas veces hiciste lo?
- _____ La discoteca no es en la calle principal.
- _____ ¿Con qué frecuencia lo lavas?
- _____ Tu abrigo es en el armario.
- _____ Los niños normalmente no comen lo.
- _____ ¿Hizo lo por motivos altruistas?
- _____ El alcalde del pueblo es comunista.
- _____ ¿Ves la cada día a la misma hora?
- _____ El presidente está un amigo de mi padre.
- _____ Eligieron la por tercera vez.

____ Ella todavía no lo sabe.
____ ¿Dónde son las famosas ruinas romanas?
____ Preguntó donde tenía lo.
____ ¿Es argentino su marido?
____ Pregunté como lo hacía.
____ ¿La Giralda es en Sevilla o en Granada?
____ ¿Cuál es el niño que lo rompio?
____ ¿Su novia es triste hoy?
____ Lo vendí en mil pesetas.
____ ¿Dónde está el castillo embrujado?

APPENDIX 5:

Please could you provide the following information:

Your date of birth: _____

Are you a native speaker of English? _____

If not, please specify your native language _____

Are you studying Brazilian or continental Portuguese? _____

How long have you been studying Portuguese? _____

Do you enjoy studying Portuguese? _____

Did you know any Portuguese before you began studying at this university? _____ If so, about how much? ("elementary"; "O" level)

How would you rate your proficiency in Portuguese? _____

very good / good / average / weak (please circle)

Have you studied Spanish previously? _____

If "yes", how long have you studied it?:

_____ years at school

_____ years at university

_____ years elsewhere, e.g. in Spanish-speaking country; at home, from books; (please specify) _____

What other languages do you speak? Please give some indication of how well you speak them, e.g. "fluent"; "elementary"; or "O" level/ "A" level.

What are your main reasons for studying Portuguese?

From the following list of possible reasons, tick those which are applicable to you; put two ticks beside the one(s) which you consider particularly important:

Interest in Portuguese/Brazilian culture _____

Interest in Portuguese language _____

To be able to get a job in Portugal/Brazil _____

To begin to think and behave as Portuguese/Brazilian people do _____

To help get a better job at home _____

To establish better relations with Portuguese/Brazilian people _____

To increase my repertoire of foreign languages _____

Because I needed another subject to complete my degree _____

Other (please specify) _____

APPENDIX 6

Breakdown of sentences in Grammaticality Judgement Tasks

Portuguese

ser/estar

Sentences 1-4 : incorrect Spanish-like use of *estar* for permanent location

- 1) present tense - interrogative
- 2) " " " " " - affirmative
- 3) past tense - affirmative
- 4) present tense - negative
- 5) past tense - negative
- 6) past tense - interrogative

Sentences 7-10 : incorrect non-Spanish-like use of *estar* for permanent features

- 7) present tense - interrogative + PROFESSION
- 8) past tense - affirmative + NATIONALITY
- 9) present tense - affirmative + CHARACTERISTIC
- 10) present tense - negative + CHARACTERISTIC

Sentences 11-14 : incorrect non-Spanish like use of *ser* for temporary features

- 11) present tense - negative + MOOD
- 12) present tense - affirmative + LOCATION
- 13) past tense - affirmative + MOOD
- 14) present tense - interrogative + LOCATION

Sentences 15-20 : correct un-Spanish-like use of *ser* for permanent location.

- 15) past tense - affirmative
- 16) present tense - affirmative
- 17) present tense - interrogative
- 18) present tense - negative
- 19) past tense - negative
- 20) past tense - interrogative

Sentences 21-24 : correct Spanish-like use of *ser* for permanent features

- 21) present tense - affirmative + CHARACTERISTIC
- 22) past tense - affirmative + NATIONALITY
- 23) present tense - negative + CHARACTERISTIC
- 24) present tense - interrogative + PROFESSION

Sentences 25-28 : correct Spanish-like use of *estar* for temporary features

- 25) present tense - affirmative + LOCATION
- 26) present tense - negative + MOOD
- 27) past tense - affirmative + MOOD
- 28) present tense - interrogative + LOCATION

Clitics

Sentences 1-6 : correct Spanish-like pre-verbal

- 1) past tense - embedded sentence (indirect question)
- 2) past tense - embedded sentence (relative clause)
- 3) present tense- negative
- 4) past tense - embedded sentence (reported speech)
- 5) past tense - interrogative
- 6) present - affirmative post-adverbial

Sentences 7-12 : incorrect Spanish-like pre-verbal

- 7) present - affirmative
- 8) present - polar interrogative
- 9) past - polar interrogative
- 10) present - affirmative
- 11) past - affirmative
- 12) past - affirmative

Sentences 13-18 : correct un-Spanish-like post-verbal

- 13) past - affirmative
- 14) present - affirmative
- 15) past - affirmative
- 16) present - polar interrogative
- 17) present - affirmative
- 18) past - polar interrogative

Sentences 19-24 : incorrect un-Spanish-like post-verbal

- 19) past - embedded sentence (reported speech)
- 20) past - interrogative
- 21) present - negative
- 22) past - embedded sentence (indirect question)
- 23) past - embedded sentence (relative clause)
- 24) present - affirmative post-adverbial

Spanish

ser/estar

Sentences 1-4 : correct Portuguese-like use of *ser* for permanent features

- 1) present tense - affirmative + PROFESSION
- 2) " " " " " - affirmative + POLITICAL ALLEGIANCE
- 3) present tense - negative + CHARACTERISTIC
- 4) present tense - interrogative + NATIONALITY

Sentences 5-8 : correct un-Portuguese-like use of *estar* for permanent location

- 5) present tense - interrogative
- 6) present tense - affirmative
- 7) present tense - interrogative
- 8) present tense - negative

Sentences 9-12 : correct Portuguese-like use of *estar* for temporary features

- 9) present tense - affirmative + LOCATION
- 10) past tense - negative + LOCATION
- 11) present tense - affirmative + MOOD
- 12) present tense - interrogative + MOOD

Sentences 13 and 18-20 : incorrect un-Portuguese-like use of *ser* for temporary features.

- 13) present tense - affirmative + MOOD
- 18) past tense - negative + LOCATION
- 19) present tense - affirmative + LOCATION
- 20) present tense - interrogative + MOOD

Sentences 14-17 : incorrect Portuguese-like use of *ser* for permanent location

- 14) present tense - interrogative
- 15) present tense - affirmative
- 16) present tense - interrogative
- 17) present tense - negative

Sentences 21-24 : incorrect un-Portuguese-like use of *estar* for permanent features

- 21) present tense - affirmative + CHARACTERISTIC
- 22) present tense - affirmative + CHARACTERISTIC
- 23) past tense - affirmative + NATIONALITY
- 24) present tense - interrogative + CHARACTERISTIC

Clitics

Sentences 1-8 : incorrect un-Portuguese-like post-verbal

- 1) past tense - embedded sentence (reported speech)
- 2) past tense - embedded sentence (indirect question)
- 3) past tense - embedded sentence (relative clause)
- 4) past tense - embedded sentence (relative clause) - interrogative
- 5) past tense - interrogative
- 6) present - interrogative
- 7) past tense - negative
- 8) present - negative

Sentences 9-12 : incorrect -Portuguese-like post-verbal

- 9) past - polar interrogative
- 10) present - affirmative
- 11) present - polar interrogative
- 12) past - affirmative

Sentences 13-20: correct Portuguese-like pre-verbal

- 13) present tense - negative
- 14) past tense - negative
- 15) past tense- embedded sentence (reported speech)
- 16) past tense - embedded sentence (indirect question)
- 17) past tense - embedded sentence (relative clause)
- 18) present - relative clause - interrogative
- 19) past tense - interrogative
- 20) present tense - interrogative

Sentences 21- 24: correct un-Portuguese-like pre-verbal

- 21) present - affirmative
- 22) present - polar interrogative
- 23) past - affirmative
- 24) past - polar interrogative

APPENDIX 7: LEARNING BACKGROUND OF SUBJECTS

Liverpool

Hours

Students in their first year receive 3 hours per week of Portuguese tuition; in second and final year this rises to 4 (officially), but in practice 5 as the head of department feels they need more time at this level, and provides the extra tuition herself. This is apart from their literature classes, which I have not counted as they are given in English.

Specific structures

The *ser/estar* distinction is presented in the first term of the first year, which means that the first year students had first met this structure three months previously to participating in the experiments. The teacher did not make explicit comparisons with Spanish, unless the students specifically asked; however, more often, the students were able to provide the comparison and contrast themselves. She believed that in spite of the differences between the two languages, the knowledge of Spanish seemed to help rather than hinder, perhaps because they at least expected to meet two existential verbs. Her method was a mixture of explanation and example/situation; time constraints, in the form of a tight syllabus prevented her being able to provide all the practice she would have liked to. Since then, she has not overtly revised the construction, but has corrected errors as they have arisen.

The clitic pronouns were taught in the first term also, though later than the *ser/estar* distinction. She preferred to teach each sentence-type separately, to help avoid confusion, and to teach direct object before indirect, as it seemed to her intuitively to be easier. The post-verbal position (in affirmative declarative sentences) was taught as the norm, the others later, as exceptions (unless they happened to arise, in a text. The method of teaching these was primarily to draw attention to occurrences in a text containing many examples. However, traditional grammar exercises would also have to be done in practice for

the type of items they would meet with in the exam.

The teacher claimed to have noticed substantial Spanish interference in both areas.

She said she would describe the ability of the first and second year students in general as average to good, whereas that of the fourth years was weak, with one exception who was extremely good. She said that in general the level of motivation was quite low, compared to Spanish which was given far more emphasis, and for which far more teaching materials were available.

Edinburgh

Hours

Students in their first year of Portuguese had three hours of classes per week, one with the head of department, intended to be primarily a grammar class, and two with the language assistant, intended to be oral fluency classes. The language assistant said that in practice, however, her classes also tended often to be grammar-based because of the pressure of the syllabus.

Fourth year students (second year of Portuguese) had two hours of language classes per week, as well as literature classes which were given in English.

Specific structures

Ser/estar were taught very early on in the course, in the second lesson with the head of department, then reinforced with the language assistant. After this, the structure was not specifically revised, but only corrected when errors occurred.

The clitics were taught towards the end of the first term, and these were revised at intervals as they were deemed to be more problematic.

Methods

As mentioned already, the language assistant often found it necessary to make the

conversation classes grammar-based - with over 50% of class time being spent on writing, either grammar exercises or compositions. This was because of the emphasis laid on writing in the examinations (approximately 80% of which were writing based with listening comprehension having been introduced the previous year. The main activity-types were texts (for linguistic analysis and discussion), conversation (often structure-based) and traditional exercises (such as gap-fillings, transformations)

Transfer

The language assistant felt that to a native speaker of Portuguese, a *ser/estar* mistake was more salient and more shocking than a pronoun order mistake. Interestingly, her intuitive judgement was that the former type of mistake was caused less by interference from Spanish than from English, in the sense that Portuguese and Spanish both make a semantic distinction not made in English.

On the question of pronoun position, however, she agreed that errors in this area often seemed to result from application of Spanish rules. On the other hand, she sometimes noticed an initial tendency to place pronouns anywhere, with the higher incidence of errors being in subordinate clauses. By the fourth year (2nd of Portuguese) they were able to make the distinction more easily; in general, at higher levels she observed less interference from Spanish although it did persist at certain language levels, noticeably in vocabulary - either simply inserting a Spanish word, or using a false cognate word in its Spanish sense instead of its Portuguese sense.

She claimed that this Spanish interference generally made it more rewarding to teach "from scratch", i.e. to teach students without previous Spanish knowledge.

Motivation

She described their motivation (at both levels) as "average"; like the Liverpool students, they tended to be more motivated towards Spanish than towards Portuguese. The exceptions were

students who had a very specific motivation, such as one of the non-Spanish speakers who intended to study in Brazil.

London

I carried out the tests in Kings College London, where most of the students are based; they do, however, also receive students from University College, who are taking a course called "Iberian Studies", and come to Kings' for the Portuguese language component.

Hours

The first year students, those who have no previous knowledge of Portuguese, have 5 hours tuition per week, including 1 hour in the language laboratory and 2 hours with one of the language assistants, concentrating on the variety of their choice, whether European or Brazilian Portuguese. Second year, "basic course", and 3rd year (intermediate level) have 3 hours per week each; final year students have three hours, a combination of advanced language work and options, including text analysis, composition, and translation.

As for residence requirements, for the *ab initio* students it is compulsory for them to attend a 4-week language course at a Lisbon language school; the second-year students have the option of taking a vacation course at a Portuguese university; single honours students can take a year out from their studies to spend in Portugal, and combined honours must spend one year abroad to be divided between Portugal (or Brazil) and the country where their other language is spoken.

Motivation

That of Kings' students is good because they have chosen to take Portuguese - it is not, as at some other universities, simply a compulsory component of another course. The University College students are less motivated, and this shows in their performance. Their course

involves two years of language, of which Portuguese only comes in the second year, and they have 3 hours per week.

Methods

The language teaching is mainly done by the language assistants; the methodology varies from teacher to teacher. It typically involves a combination of texts, for translation and/or comprehension and discussion; language lab. drills; conversation, and grammatical analysis. Use of computers is a project for the future. More advanced students study more specialist uses, some technical language, and translation of varied text-types: literary, journalistic, political, etc.

Transfer

The teacher reckoned that the influence of Spanish on vocabulary acquisition was clear. In grammar, it was noticeable particularly in tense use, e.g. the present perfect. In pronunciation it was very strong. In the specific areas covered by my study, both *ser/estar* and the clitic pronouns, he was fairly sure that transfer took place.

In general terms, he spoke about the problem of knowing how to teach: whether to teach via Spanish, or to avoid it; whether to keep correcting transfer errors or to let the problems iron themselves out by themselves.

For more details on methods, I asked the language assistants. They told me that the first two years were orally-based above all; much use was made of visual aids: pictures, picture stories and the like; they did also use a book with grammatical exercises for more formal work. Especially for the first years, the emphasis was on survival skills in preparation for the summer to be spent in Lisbon. There was some written reinforcement, through dictation of sentences and simple translation. They also used cassettes for pronunciation

work and for listening practice, with comprehension being checked through both written and oral responses to questions.

Regarding the specific areas of my investigation, *ser* and *estar* were taught in the first classes, while clitic pronouns were taught half-way through the first term. The pronouns were felt to be an area of particular difficulty to the students, and were frequently reviewed using quick 10-item tests, gap-filling exercises, and the like.

APPENDIX 8: INSTRUCTIONS FOR TASKS

Please do not think of this as a test! You will not be assessed in any way on your answers to these exercises. Your answers to every section will be anonymous. I do, however, ask you to supply your date of birth. This is to give me a means of comparing your answers to the different sections, without asking you to supply your name.

I will be asking you to complete three short exercises in Portuguese, followed by two general questionnaires. Finally, there will be a short exercise in Spanish. In each case, please read the instructions carefully before beginning the exercise.

In the first Portuguese task, and in the Spanish task, you are asked to judge whether some sentences are correct or not. it is very important to this type of research that you answer quickly, according to your first impression, rather than trying to remember grammatical rules. it is also very important that you do not go back and revise any previous answers. For the other exercises, too, you should try to give the answer which "feels right", rather than consciously applying rules.

Thank you very much for participating. If you would like to ask any questions, after completing the tasks, I would be very happy to attempt to answer them. I would also be very grateful for any comments you might wish to make about the tasks and questionnaires (these could either be made directly to me, or written on the appropriate answer sheets)

Appendix 9

Because of the unequal sample sizes, a reduced form of the ANOVA was carried out wherever the full ANOVA had pointed to significant differences, to see whether this would still give significant results. For this purpose, 10 Spanish-speakers were selected to compare with the 10 non-Spanish speakers. They were all beginners, none were exceptional in any way (i.e. all were native speakers of English, all were studying European Portuguese, and none of their responses to the tasks represented an extreme value on more than one occasion), and they were chosen from each of the four universities in proportion to the total numbers for students representing that university in the study, as follows: 4 from Edinburgh, 3 from Glasgow, 2 from Liverpool, and 1 from London. The results are below:

***** Analysis of Variance -- design 1 *****

Tests involving 'GRAMFEA' Within-Subject Effect.

Tests of Significance for T2 using UNIQUE sums of squares
Source of Variation SS DF MS F Sig of F

WITHIN+RESIDUAL	15.06	21	.72		
GRAMFEA	1.82	1	1.82	2.54	.126
LEVEL BY GRAMFEA	.49	2	.24	.34	.716

***** Analysis of Variance -- design 1 *****

Tests involving 'LANGNUM' Within-Subject Effect.

Tests of Significance for T3 using UNIQUE sums of squares
Source of Variation SS DF MS F Sig of F

WITHIN+RESIDUAL	7.08	21	.34		
LANGNUM	1.18	1	1.18	3.49	.076
LEVEL BY LANGNUM	.08	2	.04	.12	.884

***** Analysis of Variance -- design 1 *****

Tests involving 'POSNEG' Within-Subject Effect.

Tests of Significance for T4 using UNIQUE sums of squares
Source of Variation SS DF MS F Sig of F

WITHIN+RESIDUAL	15.04	21	.72		
POSNEG	1.33	1	1.33	1.86	.187
LEVEL BY POSNEG	.21	2	.10	.14	.867

***** Analysis of Variance -- design 1 *****

Tests involving 'GRAMFEA BY LANGNUM' Within-Subject Effect.

Tests of Significance for T5 using UNIQUE sums of squares
Source of Variation SS DF MS F Sig of F

WITHIN+RESIDUAL	6.81	21	.32		
GRAMFEA BY LANGNUM	.06	1	.06	.19	.666
LEVEL BY GRAMFEA BY LANGNUM	1.57	2	.79	2.43	.113

***** Analysis of Variance-- design 1 *****

Combined Adjusted Means for LEVEL

Variable .. T5

LEVEL

advanced UNWGT. -.37812

4 UNWGT. .27005

5 UNWGT. -.04517

***** Analysis of Variance-- design 1 *****

Tests involving 'GRAMFEA BY POSNEG' Within-Subject Effect.

Tests of Significance for T6 using UNIQUE sums of squares

Source of Variation	SS	DF	MS	F	Sig of F
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WITHIN+RESIDUAL	7.57	21	.36		
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GRAMFEA BY POSNEG	.04	1	.04	.10	.757
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LEVEL BY GRAMFEA BY POSNEG	1.18	2	.59	1.64	.218
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***** Analysis of Variance-- design 1 *****

Tests involving 'LANGNUM BY POSNEG' Within-Subject Effect.

Tests of Significance for T7 using UNIQUE sums of squares

Source of Variation	SS	DF	MS	F	Sig of F
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WITHIN+RESIDUAL	15.61	21	.74		
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LANGNUM BY POSNEG	.33	1	.33	.44	.514
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LEVEL BY LANGNUM BY POSNEG	1.19	2	.60	.80	.461
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***** Analysis of Variance-- design 1 *****

Tests involving 'GRAMFEA BY LANGNUM BY POSNEG' Within-Subject Effect.

Tests of Significance for T8 using UNIQUE sums of squares

Source of Variation	SS	DF	MS	F	Sig of F
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WITHIN+RESIDUAL	16.19	21	.77		
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GRAMFEA BY LANGNUM BY POSNEG	6.60	1	6.60	8.56	.008
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LEVEL BY GRAMFEA BY LANGNUM BY POSNEG	2.18	2	1.09	1.41	.266
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***** Analysis of Variance*****

20 cases accepted.

0 cases rejected because of out-of-range factor values.

0 cases rejected because of missing data.

2 non-empty cells.

1 design will be processed.

***** Analysis of Variance-- design 1 *****

Combined Observed Means for SPANISH

Variable .. ZT3ENGLI

SPANISH

no	WGT.	.16014
	UNWGT.	.16014
yesspeci	WGT.	-.05338
	UNWGT.	-.05338

Variable .. ZT3SPLIK

SPANISH

no	WGT.	.11797
	UNWGT.	.11797
yesspeci	WGT.	.04537
	UNWGT.	.04537

Variable .. ZSERNONS

SPANISH

no	WGT.	1.02894
	UNWGT.	1.02894
yesspeci	WGT.	-.07059
	UNWGT.	-.07059

Variable .. ZSERSPLI

SPANISH

no	WGT.	-1.76821
	UNWGT.	-1.76821
yesspeci	WGT.	.38702
	UNWGT.	.38702

***** Analysis of Variance-- design 1 *****

Tests of Between-Subjects Effects.

Tests of Significance for T1 using UNIQUE sums of squares

Source of Variation	SS	DF	MS	F	Sig of F
WITHIN+RESIDUAL	33.32	18	1.85		
SPANISH	.74	1	.74	.40	.535

***** Analysis of Variance-- design 1 *****

Tests involving 'GRAMFEA' Within-Subject Effect.

Tests of Significance for T2 using UNIQUE sums of squares

Source of Variation	SS	DF	MS	F	Sig of F
WITHIN+RESIDUAL	10.68	18	.59		
GRAMFEA	.60	1	.60	1.01	.328
SPANISH BY GRAMFEA	2.25	1	2.25	3.79	.067

***** Analysis of Variance-- design 1 *****

Tests involving 'LANGNUM' Within-Subject Effect.

Tests of Significance for T3 using UNIQUE sums of squares

Source of Variation	SS	DF	MS	F	Sig of F
WITHIN+RESIDUAL	11.42	18	.63		
LANGNUM	6.51	1	6.51	10.27	.005
SPANISH BY LANGNUM	14.41	1	14.41	22.72	.000

***** Analysis of Variance -- design 1 *****

Combined Adjusted Means for SPANISH

Variable .. T3

SPANISH

no UNWGT. -1.41966

yesspeci UNWGT. .27818

***** Analysis of Variance -- design 1 *****

Tests involving 'GRAMFEA BY LANGNUM' Within-Subject Effect.

Tests of Significance for T4 using UNIQUE sums of squares

Source of Variation	SS	DF	MS	F	Sig of F
WITHIN+RESIDUAL	11.99	18	.67		
GRAMFEA BY LANGNUM	7.18	1	7.18	10.77	.004
SPANISH BY GRAMFEA B Y LANGNUM	12.12	1	12.12	18.19	.000

***** Analysis of Variance -- design 1 *****

20 cases accepted.

50 cases rejected because of out-of-range factor values.

1 case rejected because of missing data.

2 non-empty cells.

1 design will be processed.

***** Analysis of Variance -- design 1 *****

Combined Observed Means for SPANISH

Variable .. ZT3ENGLI

SPANISH

no WGT. .16014

UNWGT. .16014

yesspeci WGT. -.05338

UNWGT. -.05338

Variable .. ZT3SPLIK

SPANISH

no WGT. .11797

UNWGT. .11797

yesspeci WGT. .04537

UNWGT. .04537

Variable .. ZSERNONS
 SPANISH
 no WGT. 1.02894
 UNWGT. 1.02894
 yesspeci WGT. -.07059
 UNWGT. -.07059

 Variable .. ZSERSPLI
 SPANISH
 no WGT. -1.76821
 UNWGT. -1.76821
 yesspeci WGT. .38702
 UNWGT. .38702

 ***** Analysis of Variance-- design 1 *****

Tests of Between-Subjects Effects.

Tests of Significance for T1 using UNIQUE sums of squares
 Source of Variation SS DF MS F Sig of F

WITHIN+RESIDUAL	33.32	18	1.85		
SPANISH	.74	1	.74	.40	.535

***** Analysis of Variance-- design 1 *****
 Tests involving 'GRAMFEA' Within-Subject Effect.

Tests of Significance for T2 using UNIQUE sums of squares
 Source of Variation SS DF MS F Sig of F

WITHIN+RESIDUAL	10.68	18	.59		
GRAMFEA	.60	1	.60	1.01	.328
SPANISH BY GRAMFEA	2.25	1	2.25	3.79	.067

***** Analysis of Variance-- design 1 *****

Tests involving 'LANGNUM' Within-Subject Effect.

Tests of Significance for T3 using UNIQUE sums of squares
 Source of Variation SS DF MS F Sig of F

WITHIN+RESIDUAL	11.42	18	.63		
LANGNUM	6.51	1	6.51	10.27	.005
SPANISH BY LANGNUM	14.41	1	14.41	22.72	.000

***** Analysis of Variance-- design 1 *****

Tests involving 'GRAMFEA BY LANGNUM' Within-Subject Effect.

Tests of Significance for T4 using UNIQUE sums of squares
 Source of Variation SS DF MS F Sig of F

WITHIN+RESIDUAL	11.99	18	.67		
GRAMFEA BY LANGNUM	7.18	1	7.18	10.77	.004
SPANISH BY GRAMFEA B Y LANGNUM	12.12	1	12.12	18.19	.000